IN THE UNITED STATES PATENT AND TRADEMARK OFFICE		
	Application Number	09/759,345
	Filing Date	January 16, 2001
	First Named Inventor	Douglas H. ROBINSON
	Group Art Unit	1645
	Examiner Name	Robert Zeman
	Attorney Docket Number	2149-107
Title of the Invention:	*METHODS FOR THE ISOLATION OF BACTERIA CONTAINING EUKARYOTIC GENES*	

APPELLANT'S BRIEF

Applicant appeals from the Final Rejection of the claims of the above-referenced patent application dated September 23, 2002. The fee required by 37 C.F.R. §1.17(c), a petition pursuant to 37 C.F.R. §1.116(a) and the fee required for a four month extension of time accompany this brief. The Commissioner is authorized to charge any underpayment or credit any overpayment to deposit account No. 02-2135. The current claims of this application are reproduced in Appendix A.

I. REAL PARTY IN INTEREST

The named inventor is the real party in interest in this appeal.

II. RELATED APPEALS AND INTERFERENCES

Applicants are unaware of any appeals or interferences related to the subject matter of this appeal.

III. STATUS OF CLAIMS

Claims 1-29 are currently pending and are under final rejection as a result of the Office Action mailed September 23, 2002 (Paper 8). Claims 1-29 are appealed.

IV. STATUS OF AMENDMENTS

The following amendments to the claims are filed concurrently herewith:

3. The method according to claim 2 which further comprises subjecting the cells to ~~an~~ a final aerobic culturing step.

26. A cell according to claim 24 that is a ~~bacteria~~ bacterium.

28. A cell according to claim 25 that is a ~~bacteria~~ bacterium.

These amendments have not been entered.

V. SUMMARY OF THE INVENTION

The present invention relates to methods for producing a bacterium that contains a eukaryotic and/or viral gene, which comprises culturing virally-infected eukaryotic cells under low oxygen conditions to produce a bacterium containing a eukaryotic and/or viral gene. Under a preferred embodiment of the invention, the method comprises the steps of (a) culturing virally-infected eukaryotic cells under anaerobic conditions with at least one exposure to aerobic or microaerophilic conditions, (b) culturing cells from step (a) under aerobic conditions, and (c) isolating at least one bacterium that contains a eukaryotic or viral gene. The invention also relates to cells produced by the claimed methods.

The unusual feature of the claimed invention is that by utilizing the methods thereof, it is possible to produce, from a culture of eukaryotic cells, altered cells that have all the morphological characteristics of bacteria (i.e., would be classified as "bacteria" by the objective observer), yet contain one or more eukaryotic or viral genes in their genome without introducing the genes into a bacterial culture by traditional molecular biological techniques. While not wishing to be bound by theory, it appears that the methods of this invention result in "de novo speciation" or "de-evolution" of the eukaryotic cells into bacterial forms. By the exercise of scrupulous attention to sterility, and the use of

multiple controls in the methods, it has been confirmed that the bacteria produced are not the product of contamination at any point in the process and so are not the result merely of contaminating bacteria overgrowing the starting eukaryotic cell culture.

The method is useful for producing bacteria that contain and express a variety of eukaryotic and/or viral proteins. Such cells can be used in fermentation culture to produce these proteins in quantity for use as medicines, diagnositic agents, etc., or can be used to produce vaccines, as well as for any number of other purposes for which traditionally-produced transgenic bacteria are used.

VI. ISSUES

A first issue is whether or not the subject matter of claims 1-29 meets utility requirements of 35 U.S.C. § 101. The Patent Office maintains that because the claims are drawn to a method for "producing" a bacterium, the claims call for the "creation" of a new species, and/or "creation of a life form," and are hence based on an incredible utility and are inoperative. Applicant argues that a) the claims are not directed to the "creation of a new life form" or "spontaneous generation of a life form," but rather to de novo speciation of a bacterial cell from a culture of eukaryotic cells and b) regardless of possible doubts, the Applicant has shown through data presented in the specification and in an independent reproduction of the work, that the method does, in fact, function and therefor is demonstrably operative.

A second issue is whether or not a deposit has been made in accordance with the Budapest Treaty. The Patent Office asserts that compliance with the requirements of 35 U.S.C. §112, first paragraph requires that a deposit of micro-organisms be made under the Budapest Treaty. Applicant argues that such deposits have, in fact, been

made, as is stated in the presumptively accurate disclosure of the specification, and as was repeated in the last response prior to issuance of the final Office Action. Applicant is prepared to submit copies of certificates of deposits made by the applicant and again declare that the provisions of the Budapest Treaty have been met, if the veracity of statements in the specification is doubted.

A third issue is whether or not claims 1-29 are enabled by the specification as required by 35 U.S.C. §112, first paragraph. The Patent Office asserts that the specification is enabled for *isolating* a bacterium, it does not reasonably provide enablement for *producing* a bacterium, or for producing any an all bacteriia. Applicant argues a) that the examples of the application show that the methods in fact do function to produce a bacterium as claimed, and further that independent reproduction of the experiments described in the specification confirms that the specification is enabling, and 2) that the specification need not enable production of "any and all" bacteria in order to fulfill the requirements of §112, first paragraph.

A fourth issue is whether or not claims 1-29 meet the definateness requirement of 35 U.S.C. §112, second paragraph. The Patent Office asserts that the claim term "low oxygen conditions" is indefinite, and the recitation of culture steps under "low oxygen conditions" and under "anaerobic conditions" within the same claim is contradictory and confusing. Applicant argues that the term is specifically and clearly defined in the specification in a manner consistent with its accepted meaning in the art, and is therefore definite, and that the recitation of two different culture conditions for two different steps in a multi-step process does not render the claim contradictory or confusing. The Patent Office also asserts that the claims fail to set forth the subject

matter which the applicant regards as his invention, asserting a lack of correspondence in scope between the claims and the way in which the applicant has characterized the invention in its arguments before the Patent Office. The applicant argues that there is no inconsistency between the claims and any characterization of the invention made the the applicant, either in the specification or in subsequent argument. The Patent Office asserts that the use of the terms "derived," "evolved," "pleiomorphic" and "morphology that is neither eukaryotic nor prokaryotic" render the claims indefinite. The applicant argues that these claims have well-established meanings in the art and/or are expressly defined in the specification, and thus would be understood by a person having ordinary skill in the art, and are as definite as the subject matter permits.

A fifth issue is whether or not claims 24-29 meet the written description requirement of 35 U.S.C. §112, second paragraph. The Patent Office asserts that the claim limitation that the claimed cell is not a transgenic cell is not supported by a written description in the specification. Applicant argues that the Patent Office is applying an improper *in haec verba* test, and that a person of ordinary skill in the art would have understood that what was being described and claimed was a cell that was not a transgenic cell.

VII. GROUPING OF THE CLAIMS

Claims 1-29 are grouped together with regard to the issues of utility, enablement and indefiniteness based on alleged lack of correspondence in scope between the claims and the specification.

Claims 1-23, 26 and 28 are grouped separately from claims 24, 25, 27 and 29 with regard to the issues of written description and indefiniteness based on the use of the

allegedly vague claim terms "derived," "evolved" "pleiomorphic" and "morphology that is neither prokaryotic nor eukaryotic."

VIII. ARGUMENT

A. Issues raised in the Office Action about which there is no real dispute

The Office Action raises two issues about which there is no real dispute. First, the examiner has maintained a non-statutory double patenting rejection on the claims as obvious over claims 1-14 of commonly-owned U.S. Patent No. 6,022,730. Paper 8, pages 3-4. Applicant has indicated that an appropriate terminal disclaimer while be filed if any claims subject to this rejection are held allowable. Second, the examiner has objected to claims 26 and 28 due to an informality in the claim language. Paper 8, page 13. This informality has been corrected by an amendment filed concurrently herewith.

B. Rejection under 35 U.S.C. § 101

The examiner has maintained the rejection of all claims under § 101 because "the claimed invention is not supported by either a credible asserted utility or a well established utility, as the disclosed invention is inoperative." Paper 8, page 4. The examiner focuses on the use of the claim term "producing," and maintains that this is synonymous with spontaneous generation of life. Paper 8, pages 5-6. This position is based entirely on semantics and is not reasonably based on either the written description or the positions taken by the applicant during this prosecution.

Contrary to the examiner's assertion, the specification shows by provision of detailed protocols and actual data, that the claimed invention is operative. Furthermore, the applicant has submitted a detailed report, accompanied by

declarations, that demonstrates through independent corraboration of the results reported in the specification, that the claimed methods do indeed work. What the applicant has invented is a method that allows one to take cultured retrovirally-infected eukaryotic cells, uncontaminated with bacteria, subject them to a series of specific culturing conditions, and obtain at the end a culture of what, from a morphological point of view, can only be described as "bacteria," which contain intact eukaryotic and/or viral genes. The claims express and describe, within the limits of the English language, these methods. With reference to the written description, a person having ordinary skill in the art would clearly understand that the applicant is not claiming "spontaneous generation" of life (i.e., the creation of life from lifeless matter), but rather a process that results in the alteration of a living life form. Conceptually, this is no different from what is achieved by such techniques as DNA transformation of a plant cell to express one or more bacterial cells, creation of a transgenic mouse, or whole-genome replacement such as what is done with modern cloning methods, and is no more "spontaneous generation" than those are.

According to the Revised Interim Utility Examination Guidelines Training Materials (hereinafter "Utility Guidelines"), "When an applicant has specifically asserted that an invention has a particular utility, that assertion cannot simply be dismissed by the Office personnel as being 'wrong.'" Utility Guidelines, page 5. Likewise, it is not proper to simply conclude that a particular utility is not credible, particularly in the face of contrary evidence:

> An assertion is credible unless (A) the logic underlying the assertion is seriously flawed, or (B) the facts upon which the assertion is based are inconsistent with the logic underlying the assertion. Credibility as used in this

> context refers to the reliability of the statement based on the logic and facts that are offered by the applicant to support the assertion of utility. A *credible* utility is assessed from the standpoint of whether a person of ordinary skill in the art would accept that the recited or disclosed invention is currently available for use.

Utility Guidelines, page 5 (underlying added for emphasis). In the present case, the examiner's rationale for refusing to accept the factual evidence presented in support of the asserted utility is entirely premised on the characterization of the invention as being directed to "spontaneous generation," a term as loaded with meaning in the biological sciences as the term "perpetual motion" is in the physical sciences. The examiner never addresses the fact that evidence in the specification, and in the subsequently submitted Declarations in corroboration, indisputably shows the operability of the claimed invention. Instead, the examiner dismissed this evidence by saying that "said Declarations are not commensurate in scope with the instant claims." Paper 8, page 6. This is contrary to the examiner's own logic, however, as the basic premise underlying the rejection is that it simply is not possible to achieve the asserted result with the claimed method, while the examiner's dismissal of the evidence in support of utility acknowledges that the methods do function to obtain novel bacteria from cultured eukaryotic cells (i.e., it shows operability for some embodiments, but not for the "full scope"of the claims).[1]

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[1]The examiner does use the term "isolating" when describing what the evidence shows, and to the extent this is intended to imply that the method simply results in the isolation of contaminating bacteria, this is squarely contradicted by the evidence, which demonstrates within the limits of scientific proof that there were no contaminating bacteria in the starting cell cultures.

Reviewing the evidence in the record that supports utility, two Declarations under 37 C.F.R. § 1.132 were filed in the parent case, Serial No. 08/719,367, and re-submitted with the most recent Amendment in this case. One Declaration is by the inventor, Dr. Douglas Robinson, Ph.D., and one is by an independent scientist, Dr. Anton Steuer, Ph.D., who conducted a rigorous confirmation of the experiments reported in the present application. Both of these Declarations present independent corroboration of the utility of the claimed methods.

The Robinson Declaration presents a "Final Report" prepared by Microbiological Associates, Rockville, Maryland (hereinafter "MA") at the request of Dr. Robinson. The experiments requested by Dr. Robinson were for the purpose of reproducing the process described in the present application. Robinson Declaration, paragraphs 4-5; Steuer Declaration, paragraph 3. The Steuer Declaration presents additional detail regarding the work performed at MA. Dr. Steuer is the scientist who supervised the experiments by MA that corroborated the operability and utility of the claimed methods, and is an expert in the field of cell culturing techniques. Dr. Steuer also is one of the scientists employed by Microbiological Associates who signed the Final Report. Robinson Declaration, Paragraph 5; Steuer Declaration, paragraph 2. The "Final Report" states in its Conclusion that

> "Two runs involving the periodic reintroduction of an aerobic atmosphere during an anaerobic eukaryotic cell culture phase resulted in the isolation of bacteria, specifically *Bacillus licheniformis*. . . . The isolation of bacteria from eukaryotic cells subjected to alternating anaerobic/aerobic cell culture conditions provides supporting evidence for the hypothesis of *de novo* evolution of bacteria from eukaryotic cells. On the other hand, the possibility of environmental contamination as the source of the bacterial isolates cannot be absolutely eliminated. Environmental contamination is unlikely due to the cGMP compliance procedures and practices employed in the performance of

> the sterility assays, which includes a stringent environmental and personnel monitoring program. Also, no tube, plate, or bottle inoculated with eukaryotic cell control samples or media control samples showed any microbial outgrowth. These negative results for all the numerous control samples tested minimized significantly the possibility of environmental contamination."
>
> (emphasis added)

The work reported in the Final Report was carried out under tightly-controlled sterility conditions and GMP. The results showed that neither the eukaryotic cell cultures used, nor the media, nor the equipment, showed any detectable microbial contamination -- in other words, there were no bacteria in any of the starting materials used, and none were introduced during the experiments. The Final Report also shows conclusively that microorganisms having all of the morphological characteristics of bacteria were isolated from the culture at the end of each of four experimental runs.

Dr. Steuer's Declaration explains the rigorous standards employed during the testing procedure to ensure that the starting material was not contaminated and that contamination did not arise during the course of the cell culturing procedures. Steuer Declaration, paragraphs 3-4 & 6. The equipment and procedures used at MA for this work met or exceeded the most rigorous standards present in the industry (Steuer Declaration, paragraph 6), and complied with, among others, the U.S. FDA Good Laboratory Practice Regulations, the U.S. E.P.A. GLP's, the United Kingdom CLP Compliance Programme, and the Japanese GLP Standard. Steuer Declaration, paragraph 7.

Dr. Steuer explains why, in his professional opinion, the production of bacteria was not due to "contamination." Steuer Declaration, paragraphs 8-10. In Dr. Steuer's opinion, the Patent Office had "applied a requirement of 'proving' a lack of

contamination that is not applied by persons skilled in this field." Steuer Declaration, paragraph 8. It is Dr. Steuer's professional opinion that "any scientific inquiry wherein one must 'rule out' contamination, as set forth in the Office Action[2], is meaningless." Steuer Declaration, paragraph 8. As set forth in the Steuer Declaration, the claimed process was shown to produce bacteria upon anaerobic/aerobic culturing of virally-infected eukaryotic cells. Moreover, the report contains a Quality Assurance statement showing that FDA and EPA Good Laboratory Practices were followed. The report concludes that "[e]nvironmental contamination is unlikely," thus overcoming the Patent Office's position that the results were attributable to contamination.

Taken together, these Declarations establish the utility of the claimed methods, by demonstrating that they are, in fact, operative by any standard applied by persons of ordinary skill in the art. This evidence *cannot* be simply dismissed by the examiner, but must instead be rebutted by equally credible evidence or reasoned argument. This the examiner has not done, but has rather rested the entire rejection on the mischaracterization that the applicant is attempting to claim "spontaneous generation of life," followed by the assertion that since the claimed "spontaneous generation" simply is not possible, the bacteria produced must be the result of contamination. As the unrebutted evidence shows, this is an improper characterization of the invention and the assertion based thereon therefor is groundless. This rejection was therefore improper and should be reversed.

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[2]Referring to the Office Action in the parent case, Serial No. 08/719,367.

C. Rejection under 35 U.S.C. § 112, first paragraph (Deposit Requirement)

The examiner has maintained the requirement for a deposit in accordance with the Budapest Treaty. Paper 8, pages 6-7. This requirement, to the extent it is required at all, has already been met. Samples of the cells obtained in the work reported in the specification Examples have been deposited with the American Type Culture Collection in compliance with the Budapest Treaty, as stated expressly in the specification at page 8, lines 10-13. As none of the claims recite specific bacterial isolates, such deposit should not even be necessary for enablement. The specification further states at page 9, lines 26-28 that suitable starting materials are publicly available, and also provides at page 9, line 29 to page 10, line 2, reference to techniques which can be used to produce additional starting cell cultures. Thus, additional deposits of starting materials are not necessary. Finally, the specification specifically discloses the public availability of all of the eukaryotic cells lines used as starting materials in the Examples, as follows:

Cell line	Availability	Citation to Specification
RT-HCMV	ATCC CRL 11655	page 22, lines 20-22
procine cerebral microvascular endothelial	Robinson, et al.	page 27, lines17-19
L929	ATCC CCL 1	page 27, lines 19-20
murine lymphoma	ATCC TIB52	page 27, lines 20-21
SV-40 transformed human colon	ATCC CRL 1807	page 28, lines 5-6
human colon adenocarcinoma	ATCC HTB 38	page 28, lines 6-7

If the issue with regard to cell line deposits is that the applicant has somehow failed to make all the necessary statements on the record regarding compliance with the Budapest Treaty, something not entirely clear from the latest Office Action, the applicant is prepared to submit whatever formalities the Patent Office requires in this regard. The availability of these starting materials (which are in the ATCC catalogue and are not cells lines maintained by the applicant) is a matter of public record. However as stated, the applicant is prepared to submit whatever formalities are needed to satisfy the Patent Office in this regard. Therefore, this rejection as articulated in not appropriate and should be reversed.

D. Rejection under 35 U.S.C. § 112, first paragraph (Enablement)

The examiner has maintained the rejection of the claims as not being enabled under 35 U.S.C. § 112, first paragraph. The examiner asserts that the specification is enabling for methods of "isolating" a bacterium from aseptically cultured eukaryotic cells, but not for "producing" bacteria, or for "recovering any and all bacteria." Paper 8, pages 10-11. Again, the examiner improperly ignores the evidence of record that demonstrates that the claimed method functions as claimed to produce bacteria containing eukaryotic and/or viral genes from an aseptic culture of retrovirally-infected eukaryotic cells. The examiner insists, in the face of all the evidence to the contrary, that the bacteria produced are the result of contamination of the starting cultures. Paper 8, page 11. The examiner requires that the applicant prove with 100% certainly that there was not a single contaminating bacteria anywhere in the process, a standard of proof that simply does not exist in science or reality. Rather than accepting the clear evidence that, within the limits of scientific detection (which are indeed very accurate),

there was no bacterial contamination at any point in the process, the examiner starts with the conclusion that what the applicant is claiming is impossible and therefor *must* be the result of contamination, and requires the applicant to demonstrate with absolute certainly that it is not.

This has never been the standard for enablement. By definition, this disclosure enables the claims because it teaches (indeed, demonstrates) how to employ the claimed methods to produce a bacterium. "The enablement requirement is met if the description enables any mode of making and using the claimed invention." Engel Industries, Inc. v. Lockformer Co., 20 U.S.P.Q.2d 1300, 1304 (Fed. Cir. 1991). The claims on their face recite methods for producing "a bacterium." Thus, in order to meet the enablement requirements of § 112, first paragraph, the specification need only teach a person of ordinary skill in the art how to produce "a bacterium" (Engel Industries, supra), which it clearly does. In fact, the Robinson and Steuer Declarations confirm and conclusively establish that the methods disclosed in the specification enable the production of a number of different kinds of bacteria. The claimed methods need not lend themselves to producing "any and all" bacteria (this is a limitation inserted by the examiner that does not appear in the claims); the claims do not recite methods for producing specific bacteria, or all bacteria, just a bacterium, any bacterium, generally. In re Angstadt & Griffin, 190 U.S.P.Q. 214, 218 (Applicants are not required to disclose every species of their invention, even in an unpredictable art.) The statement that "the claims lack specific method steps for the recovery of the bacteria" (Paper 8, page 11) is irrelevant -- the method does not necessarily require the isolation

of the bacteria, and the Patent Office has provided no reason why such a step is required for enablement.

Additionally, the Office Action makes clear that the examiner has fundamentally misconstrued the nature of the invention in making this rejection. At page 11, the examiner that "it is unclear that the claimed method would be suitable for the recovery of any and all bacteria, a few of which may be present, but not detectable by certain means." Similar statements throughout the Office Action make clear that the examiner refuses to accept, in the fact of contrary evidence, that the products of the claimed methods are not the result of bacterial contamination of the treated eukaryotic cultures. The specification clearly states that the methods result in the acquisition by eukaryotic cells of all of the morphological characteristics of prokaryotes, and that the production of bacteria is *not* due to the presence of bacteria in the eukaryotic cell cultures. See, e.g., Comparative Examples 1/A, 1/B, 1/C, D (specifically page 26, lines 13-18), and 2/A. The Examples all provide considerable detail regarding both precautions taken against incidental contamination, and controls to monitor whether contamination had in fact occurred -- the results all indicated that there was no contamination. The Declarations of record further confirm the accuracy of the specification on this point. Dr. Seuer in particular states that in his expert opinion, the position that the Patent Office took in the parent case, which is essentially the same as that taken in the present Office Action, "is not applied by persons skilled in the art," and such an inquiry is "meaningless" in the context of this invention. Seuer Declaration, paragraph 8. The assumption of the examiner underlying this rejection therefore is incorrect.

The examiner further states that the claimed method is unpredictable. Paper 8, page 11. However, the Declarations accompanying this response conclusively demonstrate that the claimed methods are indeed completely repeatable. The examiner asserts uncertainty about how the method works, stating that it is not clear whether eukaryotic cells are living or dead at some point in the process, and that bacteria are produced under "low oxygen conditions." Paper 8, page 11. However, in Newman v. Quigg, the Federal Circuit stated that:

> "While it is not a requirement of patentability that an inventor correctly set forth, or even know, how or why the invention works . . . neither is the patent applicant relieved of the requirement of teaching how to achieve the claimed result, even if the theory of operation is not correctly explained, or even understood."

11 U.SP.Q. 1340, 1345 (Fed. Cir. 1989). See also Fromson v. Advance Offset Plate, Inc., 219 U.S.P.Q. 1137, 1149 (Fed. Cir. 1983) ("it is axiomatic that an inventor need not comprehend the scientific principles on which the practical effectiveness of his invention rests."). The disclosure of the specification, as confirmed by the experiments discussed in the Robinson and Seuer Declarations, leave no doubt that the methods do indeed work. This is all that is required under § 112.

The examiner asserts that it is unclear how one of skill in the art would determine and assure that the actual viral and/or eukaryotic genes are indeed intact genes picked up, rather than random fragments thereof, or how one would determine if the genes were integrated into the genome. Paper 8, page 12. These assertions again assume that the bacteria produced by the claimed methods are contaminants, which, as discussed above, they are not. The issues raised by the examiner with regard to the genes themselves are not material to the claims. Whether or not the genes (which

term by definition means an intact coding sequence,[3] and is specifically defined as such at page 7, lines 8-12 of the specification), are intact is not pertinent given the accepted definition of a "gene," as is the issue of genomic integration, since the bacteria are formed from the eukaryotic cells. A person of ordinary skill in the art would recognize that any eukaryotic genes present in bacteria produced by the claimed methods would be intact, stable and integrated in the genome, because that would be their condition prior to performance of the claimed methods. In any event, methods for detecting, analyzing, evaluating and characterizing genes are routine procedures for the person of ordinary skill in the art.[4]

On the whole, the evidence of record clearly demonstrates that the claimed method work, and the examiner has presented no contradictory evidence or reasoned argument to rebut of this evidence. Rejection of the claims for lack of enablement therefor is inappropriate, and this rejection should be reversed.

E. Rejections under 35 U.S.C. § 112, second paragraph (Definiteness)

1. "Under low oxygen conditions" indefinite

The examiner maintained an earlier rejection of claims 1-29 as being indefinite in the use of the term "under low oxygen conditions." Paper 8, pages 12-13. The

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[3]See, Lewin, B., Genes V, page 1242, Oxford University Press (1994), a copy of which is annexed for the Examiner's convenience.

[4]See, e.g., Sambrook, J., et al., Molecular Cloning, A Laboratory Manual, 2d ed., Chapter 9, Cold Spring Harbor Laboratory Press (1989). A copy of the table of contents for Chapter 9, which provides an outline of analytical techniques then available, was submitted with the previous Amendment filed June 24, 2002. The entire chapter is rather voluminous and not strictly necessary to support the applicant's arguments, but the applicant can provide the entire chapter if the Board so requires.

examiner asserts the term is not defined in the specification because the definition states that suitable anaerobic conditions *include* an atmosphere of 0-2 v/v% oxygen, merely identifying one of a multitude of possible concentrations, making it impossible to determine the metes and bounds of the claimed invention. Paper 8, page 13. The Federal Circuit has noted that "[m]athematical precision should not be imposed for its own sake; a patentee has the right to claim the invention in terms that would be understood by persons of skill in the field of the invention." Modine Mfg. Co. v. ITC, 75 F.3d 1545, ___, 37 U.S.P.Q.2d 1609, 1617 (Fed. Cir. 1996). Applicant submits that the term "low oxygen conditions" would be readily understood in the context of the invention by person of ordinary skill in the art, particularly in view of the definition of the term at page 9, lines 15-18 ("Preferably, the low oxygen conditions comprise alternating anaerobic culturing conditions with at least one brief period of exposure to an aerobic or microaerophilic condition."). The definition is clear, and uses terms having well-established meanings in the art – anaerobic (absence of oxygen), aerobic (presence of oxygen) and microaerophilic (very low levels of oxygen tolerated by microaerophilic organisms). The fact that the specification goes on to state that "aerobic conditions" "include" a particular range of oxygen concentrations does not render this definition vague – the definition comprises any aerobic conditions, with a preferred range of 0-2 v/v% oxygen. This is as precise as the subject matter permits. See Shatterproof Glass Corp. v. Libby-Owens Ford, Co., 758 F.2d 613, 624, 225 U.S.P.Q. 634, 641 (Fed. Cir. 1985) ("if the language is as precise as the subject matter permits, the courts can demand no more"). This rejection is improper and should be reversed.

2. Claims 2, 3 and 15 contradictory

The examiner has also maintained the rejection of claims 2, 3 and 15 as being vague and indefinite and confusing because the claims recite "subjecting the cells to an aerobic culturing step," yet depend from claims (in the case of claims 2 and 3) that recite culturing under "low oxygen conditions." Paper 8, page 13. The examiner asserts that since no "active steps" are defined to separate the two steps they remain contradictory and confusing. Id. The examiner's position is untenable in view of the express definition of "low oxygen conditions" in the specification at page 9, lines 15-18. The specification states that "[p]referably, the low oxygen conditions comprise alternating anaerobic culturing conditions with at least one brief period of exposure to an aerobic or microaerophilic condition." Thus, there is no contradiction between the claims because the embodiments recited in claims 2 and 3 are expressly contained within the definition of the conditions recited in the claim from which they depend. In the case of claim 15, this rejection makes even less sense, as the claim recites expressly a series of method steps:

> "15. A method for producing a bacterium that contains a eukaryotic and/or viral gene, which comprises (a) culturing virally-infected eukaryotic cells under anaerobic conditions with at least one exposure to aerobic or microaerophilic conditions, (b) culturing cells from step (a) under aerobic conditions, and (c) isolating at least one bacterium that contains a eukaryotic or viral gene.

In the interest of expediting allowance of the claims, the applicant proposes amending claim 3 to recite "subjecting the cells to a final aerobic culturing step. This amendment is not believed necessary, but has been submitted concurrently herewith in the event

the Board considers it to be required to overcome this rejection. This rejection should be reversed.

3. Failure to set forth the invention

The examiner has issued a new rejection of claims 1-29 as failing to set forth the subject matter which the applicant regards as his invention. Paper 8, page 14. The examiner cites the applicant's submissions in Paper 7, filed June 24, 2000, wherein it is stated that the genome of the bacteria produced is eukaryotic in nature, in essence "de-evolved" from the starting eukaryotic cell culture. The examiner concludes that the claims reciting "a single eukaryotic gene" thus do not describe this invention. Paper 8, page 15. The examiner again is resorting to semantics in order to support the rejection. The specification makes clear that the genome of the bacteria produced need not comprise the complete genome of the starting eukaryotic cells. Specification, page 7, lines 2-25. The genes might be altered, and the bacteria may also include viral genes, but the bacteria will contain at least one intact eukaryotic gene. Id. This is not at all inconsistent with the statements made by the applicant in Paper 7. First, this statement was made in response to the allegation that there was no evidence that the eukaryotic gene(s) present in the bacteria produced would be intact, stable and integrated into the genome (an issue irrelevant to patentability in any case, see section VIII.D, above), and was merely pointing out that since any eukaryotic gene present in the bacterium was derived from the starting eukaryotic cells, it would clearly be stable, intact and integrated into the genome. Second, the use of the phrase "at least one eukaryotic gene" does not exclude an entire intact genome. So, from either point of view, there is

no inconsistency between the applicant's statements in Paper 7 and the language of the claims. This rejection is improper and should be reversed.

4. "Derived," "evolved," "pleiomorphic" and "morphology" indefinite

The examiner has issued a new rejection of claims 24-29 as being indefinite. The examiner, however, has not provided any specifics for the inclusion of claims 26 and 28 in this rejection. Applicant assumes that the inclusion of claims 26 and 28 was an oversight.

The examiner has rejected claims 24 and 25 as being indefinite in the use of the term "derived," asserting that it is not clear what steps are required for "derivation." Paper 8, page 15. However, claims 24 and 25 specifically reference the methods of claims 1 and 15, respectively. Thus, the way in which the claimed cells are "derived" is expressly included in the claim. The examiner has also rejected claims 24 and 25 as being indefinite in the use of the term "evolved." Id. The term is well-understood in the art to mean "changed over time," or a similar meaning; claims 24 and 25 specifically recite that the gene in the claimed cell evolved from a eukaryotic cell treated in accordance with the methods of claims 1 and 15, respectively. The clear meaning is thus that the gene in the claimed cell has been changed from the gene of the starting eukaryotic cell by application of the process of either claim 1 or claim 5. This is as clear a recitation of the invention as the subject matter, and the English language, permits. The examiner also has rejected claims 24 and 25 as indefinite in the use of the term "pleiomorphic cell." Id. This term, synonymous with "pleomorphic," and "polymorphic" in this context, has a well-established meaning. See Webster's Third New International Dictionary definitions of "pleiomorphic," "pleomorphic" and "polymorphic" at pages 1739,

1740 and 1759 (copies attached for the Board's convenience). Contrary to the examiner's assertion, all cells are not pleiomorphic by nature – not all cells exist in several distinct forms or are capable of assuming varying forms. The use of the term in the specification is in complete accordance with the accepted meaning. See, e.g., specification, page 29, lines 10-20 ("morphologies that appear to be of neither a prokaryotic nor a eukaryotic nature were often observed ..."; "... various bizarre morphologies were often observed."). Furthermore, the examiner's statement that "it is unclear how the cell of the instant claim differs from any other cell since all cells are pleiomorphic in nature" (Paper 8, page 15) is not only factually baseless (see above), but also misleading, because the claims contain numerous additional elements that clearly distinguish the claimed cells from other cells such that the distinction does not depend only on the term "pleiomorphic." These rejections are improper and should be reversed.

The examiner has rejected claims 27 and 29 as being indefinite in the use of the term "morphology that is neither prokaryotic nor eukaryotic." Paper 8, page 15. The examiner asserts that it is unclear what is meant by the phrase since "prokaryotic" and "eukaryotic" are taxonomic terms and not morphology types. This assertion is simply incorrect. There are certain morphologies that are well-established as being characteristic of prokaryotic or eukaryotic cells. For example, the presence of a nucleus and other sub-cellular organelles such as mitochondria and endoplasmic reticulum is accepted as a characteristic "eukaryotic" morphology, and the absence of the same as a "prokaryotic" morphology. Also, certain cell shapes are accepted as characteristic "morphologies" of prokaryotic cells, for example the "coccoid" (spherical) form and the

"baccillus" (rod-like) form. Furthermore, when referring to the "morphology" of a cell, it is generally understood in the art that one is referring to the over-all morphology unless specified otherwise (for example, by discussing "morphological features"). Thus, the statement that the "morphology" of the cells is neither prokaryotic nor eukaryotic would be understood to mean that the overall morphology of the cell is not consistent with either, because certain key features are missing, or there is an unusual combination of features not found in either prokaryotes or eukaryotes. Discussion of cell morphology, consistent with this accepted meaning, appears at pages 2-5 and 28-29 of the specification. Any doubt as to the meaning of this phrase as used in the claims is removed by the disclosure, which states that the ultrastructure of isolated cells was extremely variable (page 29, lines 10-12), that the morphology was "of neither a prokaryotic nor a eukaryotic nature" (page 29, lines 16-17), and often "bizarre" (page 29, lines 21-22). Again, the language used in the claims is as definite as the subject matter permits and would be readily understood by a person having ordinary skill in the art. Therefor this rejection is improper and should be reversed.

F. Rejections under 35 U.S.C. § 112, second paragraph (Written Description)

The examiner has rejected claims 24-29 as containing subject matter that is not described in the specification. The examiner asserts that the claim limitation that the cell is not a transgenic cell is not supported by the specification. Paper 8, page 14. Examiner is applying an inappropriate *in haec verba* test for written description. Although the specific words "not a transgenic cell" do not appear in the specification, the specification as a whole reasonably conveys to a person having ordinary skill in the

art that the method indeed employs cells that are not transgenic, and that this method was in the possession of the inventor at the time the application was filed. This is sufficient under the second paragraph of § 112:

> "The test for determining compliance with the written description requirement is whether the disclosure oif the application as originally filed reasonably conveys to the artisan that the inventor had possession at the time of the later claimed subject matter, rather than the presence or absence or absence of literal support in the specification for the claim language."

In re Kaslow 217 U.S.P.Q. 1089, 1096 (Fed. Cir. 1983) . Put another way, if a person having ordinary skill in the art would immediately discern the limitation from the original disclosure, the written description requirement is satisfied. Purdue Pharma L.P. v. Faulding Inc., 56 U.S.P.Q.2d 1481, 1483 (Fed. Cir. 2000) (no *in haec verba* test for written description – limitation need only be conveyed with reasonable clarity). The present specification clearly states that an aspect of the invention is a method for producing bacterial cells expressing animal and/or viral genes that does not require any step to introduce these genes into bacteria to create transgenic bacterial cells. See specification page 6, lines 24-30; page 9, lines 5-14; page, line 27 - page 11, line 27. The present specification also describes in detail the claimed methods, with specific examples wherein the cells produced clearly are not transgenic cells because nowhere in the methods used in these examples is there a step where a transgene is introduced into bacterial cells. See, e.g., Examples 1-5. A person having ordinary skill in the art would understand that this disclosure described cells that are not transgenic cells because they are not the product of traditional molecular biological transformation techniques. This rejection therefore is inappropriate and should be reversed.

CONCLUSION

For all of the foregoing reasons, the final rejections applied to the claims are without merit. Applicant respectfully requests that these rejects be reverse, and that the Board direct the examiner to issue a favorable action on the claims.

RESPECTFULLY SUBMITTED,			
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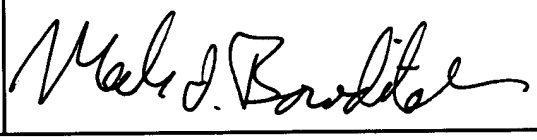
SIGNATURE		DATE	August 1, 2003

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Attachments: Appendix A, copy of claims on appeal.

Appendix A

Copy of the Appealed claims

1. A method for producing a bacterium that contains a eukaryotic and/or viral gene, which comprises culturing virally-infected eukaryotic cells under low oxygen conditions to produce a bacterium containing a eukaryotic and/or viral gene.

2. The method according to claim 1, wherein said low oxygen conditions comprise anaerobic culture conditions with at least one exposure of the cells to aerobic or microaerophillic culture conditions.

3. The method according to claim 2 which further comprises subjecting the cells to an aerobic culturing step.

4. The method according to claim 2, wherein said anaerobic culture conditions comprise an atmosphere containing less than or equal to 1 v/v% oxygen, based on the total volume of atmosphere.

5. The method according to claim 4, wherein said atmosphere contains less than 0.1 v/v % oxygen, based on the total volume of atmosphere.

6. The method according to claim 1 wherein said virally-infected eukaryotic cells are retrovirally-infected mammalian cells.

7. The method according to claim 6, wherein said mammalian cells are human cells.

8. The method according to claim 1, wherein said eukaryotic cell is a mammalian, avian or fish cell.

9. The method according to claim 8, wherein said eukaryotic cell is an endothelial cell.

10. The method according to claim 1, wherein said eukaryotic cell is a mammalian brain capillary endothelial cell.

11. The method according to claim 1, wherein said virally-infected cell is infected with a virus selected from the group consisting of the murine L-cell virus, simian immunodeficiency virus (SIV), human immunodeficiency virus (HIV), Ableson murine leukemia virus and Moloney murine leukemia virus.

12. The method according to claim 11, wherein said virus is the murine L-cell virus.

13. The method according to claim 1, wherein said culturing step is carried out at a temperature between about 20 and about 50^0 C.

14. The method according to claim 1, wherein said culturing step is carried out at a temperature of about 37^0 C.

15. A method for producing a bacterium that contains a eukaryotic and/or viral gene, which comprises (a) culturing virally-infected eukaryotic cells under anaerobic conditions with at least one exposure to aerobic or microaerophilic conditions, (b) culturing cells from step (a) under aerobic conditions, and (c) isolating at least one bacterium that contains a eukaryotic or viral gene.

16. The method according to claim 15, wherein aerobic culturing step (b) is carried out in an atmosphere containing at least 0.1 v/v% oxygen, based on the total volume of atmosphere.

17. The method according to claim 16, wherein said atmosphere contains more than 1 v/v% oxygen, based on the total volume of atmosphere.

18. The method according to claim 15, wherein said virally-infected eukaryotic cell is a retrovirally-infected mammallian endothelial cell.

19. The method according to claim 15, wherein said virally-infected eukaryotic cell is a human brain capillary endothelial cell infected with the murine L-cell virus.

20. The method according to claim 1, further comprising filtering the cells cultured in step (a) prior to said aerobic culturing step (b).

21. The method according to claim 20, comprising filtering the cells through a 0.1 to 0.8 μm filter.

22. The method according to claim 21, wherein said filter is 0.1 to 0.45 μm.

23. The method according to claim 22, wherein said filter is 0.22 μm.

24. A pleiomorphic cell that is not a transgenic cell, and is derived from a eukaryotic cell, containing at least one gene evolved from the genome of said eukaryotic cell, prepared by a process according to claim 1.

25. A pleiomorphic cell that is not a transgenic cell, and is derived from a eukaryotic cell, containing at least one gene evolved from the genome of said eukaryotic cell, prepared by a process according to claim 15.

26. A cell according to claim 24 that is a bacteria.

27. A cell according to claim 24 that has morphology that is neither prokaryotic nor eukaryotic.

28. A cell according to claim 25 that is a bacteria.

29. A cell according to claim 25 that has morphology that is neither prokaryotic nor eukaryotic.

Webster's Third New International Dictionary

OF THE ENGLISH LANGUAGE

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〈an excuse for *pleasure-seekers* to see the sun rise —Linton Wells〉

¹pleasuring *n* -s [fr. gerund of ²*pleasure*] **1** : an act or instance of taking or giving pleasure 〈changed from earning their living from farming . . . to the business of ~ —Mary H. Vorse〉 **2** : a pleasure trip : VACATION

²pleasuring *adj* [fr. pres. part. of ²*pleasure*] : designed or used for pleasure 〈taking their ease in great ~ grounds where the wilderness is preserved —R.M.Yoder〉

pleas·ur·ist \'plezh(ə)rəst\ *n* -s : PLEASURE-SEEKER

¹pleat \'plēt, *usu* -ēd-+V\ *vt* -ED/-ING/-S [ME *pleten* — more at PLAIT] **1** : FOLD; *esp* : to form, crease, or arrange in pleats or folds similar to pleats 〈~ a skirt〉 〈~ a ruffle〉 **2** : PLAIT 2

²pleat \"\ *n* -s [ME *plete* — more at PLAIT] **1 a** : a creased or uncreased fold in cloth made by doubling material over on itself to form a section of three thicknesses, stitched, attached, or held along one side from which it hangs or flares free — see BOX PLEAT, INVERTED PLEAT, KICK PLEAT **b** : something resembling such a fold 〈a ~ of skin〉 〈a great flat acreage of sand, molded into endless neat ~s by the previous night's tides —Gerald Durrell〉 **2** : a double fold esp. in paper or leather (as in the accordion fold used typically on endpapers and in the pockets of books)

³pleat \"\ *adj* : PLEATED

pleated *adj* **1 a** : made with a pleat **b** : having pleats — often of a particular style 〈knife-*pleated* skirt〉 **2** : resembling pleats 〈pine and spruce trees drape a shaggy green shawl over the ~ terrain —R.L.Neuberger〉

pleat·er \'plēd-ə(r)\ *n* -s **1** : one that pleats or makes pleats in cloth, paper, or other material **2** : one that presses or irons pleats **3** : a textile worker who folds cloth after processing **4** : TUCKER 1a(2)

pleater tape *n* : a wide stiff tape with a series of narrow slots used in pleating the tops of curtains

pleating *n* -s **1** : the act or process of making a pleat **2** : PLEAT; *collectively* : the pleats of a specific article (as a garment) **3** : a style of pleat or arrangement of pleats 〈sunburst ~〉 〈accordion ~〉

pleb \'pleb\ *n* -s [by shortening] : PLEBEIAN

plebe \'plēb\ *n* -s [F *plèbe*, fr. L *pleb-*, *plebs*] **1** *obs* : PLEBS **2** *also* **pleb** : a freshman esp. at a military or naval academy

¹ple·be·ian *also* **ple·bi·an** \plə'bēən, plē'-\ *n* -s [L *plebeius* of the common people (fr. *plebes*, *plebs* common people) + E *-an*; akin to Gk *plēthos* throng, L *plenus* full — more at FULL] **1** : a member of the Roman plebs **2 a** : one who is not of noble birth **b** : a member of the working class : one of the common people 〈a simple ~ —C.H.Sykes〉

²plebeian *also* **plebian** \"\ *adj* [L *plebeius* + E *-an*] **1** : of or relating to the Roman plebs **2 a** : of or relating to the common people 〈the old nobility . . . had swallowed its pride and married wholesale into ~ families —Nancy Mitford〉 **b** : having characteristics attributed to the general populace : crude or coarse in manner or style : COMMONPLACE, EVERYDAY, HOMELY, UNDISTINGUISHED 〈a wild ~ desire to slap the handsome girl's face —J.C.Powys〉 〈his square ~ nose —G.M. Trevelyan〉 — **ple·be·ian·ly** *adv*

ple·be·ian·ism *also* **ple·bi·an·ism** \-ə,nizəm\ *n* -s : plebeian character, manners, or style : CRUDENESS, VULGARITY 〈a Greek philosopher in the midst of foreign ~ —*Irish Statesman*〉 〈scorns no business for its ~ —Thomas Carlyle〉

ple·be·ian·ize \-ə,nīz\ *vt* -ED/-ING/-S : to make plebeian, common, or vulgar

pleb·i·fi·ca·tion \,plebəfə'kāshən\ *n* -s [*plebs* + *-i-* + *-fication*] : the act of plebeianizing : the state of being plebeianized 〈represents the ~ of the Romantic spirit —F.J.Mather〉 〈begin with the attempt to popularize learning . . . but you will end in the ~ of knowledge —S.T.Coleridge〉

ple·bis·ci·tary \plə'bisə,terē\ *also* **ple·bis·ci·tar·i·an** \-,ter-ə(a)rēən\ *adj* [*plebiscite* + *-ary* or *-arian* (fr. *-ary* + *-an*)] : of, relating to, based on, or of the nature of a plebiscite 〈the ~ will of the whole people —Gordon Wright〉

pleb·i·scite *also* **pleb·e·scite** \'plebə,sīt *also* -,sət *sometimes* 'plēbə,sīt *or* 'plebə,sēt; *usu* -d-+V\ *n* -s [in sense 1, fr. L *plebis scitum*, *plebiscitum*, fr. *plebis* (gen. of *plebs* common people) + *scitum* decree, fr. neut. of *scitus*, past part. of *sciscere* to try to find out, approve, decree, incho. of *scire* to know; in other senses, fr. F *plébiscite*, fr. L *plebiscitum* — more at PLEBEIAN, SCIENCE] **1** : PLEBISCITUM 1 **2** : a vote or decree of the people usu. by universal suffrage on some measure submitted to them by some person or body having the initiative — compare REFERENDUM **3 a** : a vote of the people usu. by universal adult suffrage of some specified district or region on the question put before them by a treaty of peace or by an international body as to choice of sovereignty **b** : the political machinery for expressing self-determination

pleb·i·sci·tum \,plebə'sīd-əm, ,plēb-\ *n, pl* **plebisci·ta** \-d-ə\ [L] **1** : a vote or decree made by the ancient Roman comitia orig. binding only on the plebs **2** : PLEBISCITE 2

plebs \'plebz\ *n, pl* **ple·bes** \'plē,bēz\ [L — more at PLEBEIAN] **1** : the common people of ancient Rome consisting of a composite body of native or naturalized Romans of varying social origins — compare PATRICIAN **2** : the general populace 〈all this talk . . . was so much claptrap, inept fabrications to hoodwink the gullible ~ —F.S.Grafford〉

ple·cop·tera \plə'käptərə\ *n pl, cap* [NL, fr. *pleco-* (fr. Gk *plekein* to plait, weave) + *-ptera* — more at PLY] : an order of insects constituted by the stone flies

¹ple·cop·ter·an \-rən\ *n* -s [NL *Plecoptera* + E *-an*] : an insect of the order Plecoptera : STONE FLY

²plecopteran \"\ *adj* : of or relating to the Plecoptera

ple·cop·ter·id \-rəd\ *n* [NL *Plecoptera* + E *-id*] : PLECOPTERAN — **plecopterid** *adj*

pleco·tine \'plekə,tīn\ *adj* [NL *Plecotus* + E *-ine*] : of or relating to the genus *Plecotus*

ple·co·tus \plə'kōd-əs\ *n, cap* [NL, fr. Gk *plekein* to twist, plait, weave + *ōt-*, *ous* ear — more at PLY, EAR] : a genus of bats (family Vespertilionidae) consisting of the common long-eared bat of Europe and Asia

plect- *or* **plecto-** *comb form* [Gk *plektos*, fr. *plekein*] : twisted 〈*plect*enchyma〉 〈*plecto*gnath〉

plec·ta·nia \plek'tānēə\ *n, cap* [NL, fr. Gk *plektanē* wreath, coil (fr. *plekein* to plait) + NL *-ia*] : a genus of ascomycetous fungi with brightly colored, stalked, and often bristly apothecia that is often included in the closely related genus *Peziza*

plec·tas·ca·les \,plek,ta'skā(,)lēz\ *n pl, cap* [NL, fr. *plect-* + *asc-* + *-ales*] *in some classifications* : an order comprising ascomycetes in which the asci are not in a hymenial layer but are scattered throughout the tissue of perithecia or similar structures

plec·ten·chy·ma \plek'teŋkəmə\ *n* -s [NL, fr. *plect-* + *-enchyma*] : a parenchymatous tissue formed by massed and twisted filaments or tubular cells esp. in fungi and lichens — compare PROSENCHYMA, PSEUDOPARENCHYMA — **plec·ten·chym·a·tous** \,plek,teŋ'kimad-əs\ *adj*

¹plec·tog·nath \'plek,tägˌnath\ *adj* [NL *Plectognathi*] : of or relating to the Plectognathi

²plectognath \"\ *n* -s : a fish of the order Plectognathi

plec·tog·na·thi \plek'tägnə,thī\ *n pl, cap* [NL, fr. *plect-* + *-gnathi*, pl. of *-gnathus*] : an order of bony fishes that generally have the maxillary bone united with the premaxillary, the posttemporal united with the skull, and the gill openings greatly reduced in size, have the ventral fins rudimentary or wanting and the body usu. covered with bony plates, spines, or small rough ossicles, and include the boxfishes, filefishes, globefishes, sunfishes, triggerfishes, and related forms — **plec·tog·nath·ic** \,plek,tägˌnathik\ *adj* — **plec·tog·na·thous** \(')plekˌtägnəthəs\ *adj*

plec·to·my·ce·tes \,plektōˌmī'sēd-ēz\ *also* **plec·to·my·ce·tae** \-d-ē\ *n pl, cap* [NL, fr. *plect-* + *-mycetes* or *-mycetae* (fr. Gk *mykēt-*, *mykēs* fungus, mushroom) — more at MYC-] *in some classifications* : a subclass of Ascomycetes coextensive with the order Plectascales — **plec·to·my·ce·tous** \-,mī'sēd-əs\ *adj*

plec·top·ter \plek'täptə(r)\ *n* -s [NL *Plectoptera*] : an insect of the order Plectoptera

plec·top·tera \plek'täptərə\ *n pl, cap* [NL, fr. *plect-* + *-ptera*] : an order of slender dul

¹plec·top·ter·an \(')plekˌtäptərən\ *or* **plec·top·ter·ous** \-rəs\ *adj* [NL *Plectoptera* + E *-an* or *-ous*] : of or relating to the Plectoptera

²plectopteran \"\ *n* -S : PLECTOPTER

¹plec·to·spon·dyl \,plektōˌspändəl\ *adj* [NL *Plectospondyli*] : of or relating to the Plectospondyli

²plectospondyl \"\ *n* -s : a fish of the order Plectospondyli

plec·to·spon·dy·li \,ˌ=ˈspändə,lī\ *n pl, cap* [NL, fr. *plect-* + *-spondyli*] *in some classifications* : an order or other group comprising fishes with the anterior vertebrae modified and united and usu. being more or less coextensive with Ostariophysi — **plec·to·spon·dyl·ous** \,ˌ=ˈspändələs\ *adj*

plec·to·stele \'plektəˌstēl *also* ,ˌ=ˈstēlē\ *n* [*plect-* + *stele*] : an actinostele (as in a club moss) in which the xylem elements are arranged in usu. parallel plates

plec·tre \'plektə(r)\ *n* -s [F, fr. L *plectrum* — more at PLECTRUM] : PLECTRUM

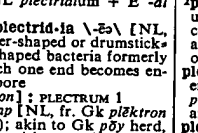
plec·trid·i·al \(')plekˈtridēəl\ *adj* [NL *plectridium* + E *-al*] : having the form of a drumstick

plec·trid·i·um \plekˈtridēəm\ *n, pl* **plectrid·ia** \-ēə\ [NL, fr. L *plectrum* + NL *-idium*] : a hammer-shaped or drumstick-shaped cell; *esp* : any of various rod-shaped bacteria formerly classed as a genus *Plectridium* in which one end becomes enlarged by the production of an endospore

plec·tron \'plekˌträn\ *n* -s [Gk *plēktron*] : PLECTRUM 1

plec·trop·o·mus \plekˈträpəməs\ *n, cap* [NL, fr. Gk *plēktron* + NL *-pomus* (fr. Gk *pōma* lid, cover); akin to Gk *pōy* herd, flock — more at FUR] : a genus comprising tropical Indo-Pacific percoid food fishes (as the coral cod of Australia) and others that are dangerously poisonous when eaten and being sometimes isolated in a separate family but usu. included among the Serranidae

plec·trum \'plektrəm\ *n, pl* **plec·tra** \-rə\ *or* **plectrums** [L, fr. Gk *plēktron* striking instrument, spur, fr. *plēk-* (stem of *plēssein* to strike) + *-tron*, suffix denoting an instrument — more at PLAINT] **1** : a small thin piece of ivory, wood, metal, horn, quill, or other material used in playing on plucked stringed musical instruments (as the lyre, mandolin) **2** [NL, fr. L] : any of various anatomic parts that suggest a plectrum in form



plectra 1

pled *past of* PLEAD

¹pledge \'plej\ *n* -s [ME *plegge*, fr. MF *plege*, fr. OF, fr. LL *plebium* security, fr. (assumed) LL *plebere* to pledge, prob. modif. (influenced by L *praebēre* to offer) of (assumed) OFrk *plegan* to be responsible for, guarantee; akin to OHG *pflegan* to take care of — more at PLIGHT, PREBEND] **1 a** : a person under early English law whose body is given as security for the performance of an obligation : HOSTAGE **b** : a chattel or object of personal property delivered by a debtor or obligor to a creditor or obligee to be kept by the latter until the debt or obligation is satisfied : an object given as security by pledge **c** (1) : a bailment of a chattel or object of personal property as security for the satisfaction of a debt or other obligation (2) : the contract, obligation, or form of property incidental to such a bailment **d** : an agreement involving the delivery as security but without transfer of title of objects capable of physical delivery as distinguished from a common-law mortgage which always involves a conditional transfer of title **e** : the transfer of a chose in action by delivery and transfer of title — compare MORTGAGE **2** : the state of being held as a security or guaranty 〈the camera spent three weeks in ~ at the shop —John Hersey〉 **3 a** : something given or considered as a security for the performance of an act and usu. liable to forfeiture in case of nonperformance **b** : something in pawn 〈kept the famous painting as a ~ that would be restored eventually to its original owner〉 **4** : something that is a token, sign, evidence, or earnest of something else 〈the strong beat of his heart was a ~ of a vigorous life〉 **5** : a gage of battle 〈threw his gauntlet as a sacred ~ —Edmund Spenser〉 **6** : a child that constitutes evidence of a bond between its parents **7 a** : an assurance of goodwill or favor given by drinking one's health **b** : the toasting of a person **8 a** : a promise or agreement by which one binds himself to do or forbear something 〈in the typical Victorian romance a touch of the hand was a ~ of matrimony —M.D.Geismar〉 **b** : a promise usu. in writing to refrain from using intoxicants or something considered harmful — usu. used with *the* 〈takes a lifelong ~ to abstain from drinking whiskey —M.V.Reidy〉 **9 a** : a promise to join a fraternity or secret society **b** : a person who has promised to join such a group but has not been initiated 〈inculcating the doctrine of hospitality in all actives and ~s —J.E.Ivins〉

Syn EARNEST, TOKEN, PAWN, HOSTAGE: PLEDGE may apply to anything handed over as a security for fulfillment of a debt or promise or satisfaction of an obligation 〈the pawnshop, where one waits nervously while the swarthy, shrewd-eyed attendant squints contemptuously at the *pledges* one offers —Donn Byrne〉 〈property of the debtor in the creditor's possession was held as a valid *pledge* —*Harvard Law Rev.*〉 EARNEST may designate a payment, usu. of money, serving to bind an agreement and indicate either the certainty or the likelihood of additional subsequent payments; in today's English it often indicates a reliable sign indicating a future course 〈the boy or girl, man or woman, was hired and given the *earnest* . . . by the employer —F.D.Smith & Barbara Wilcox〉 〈the gold on the surface was only an *earnest* of the gold veining the rocks beneath it —M.B.Eldershaw〉 TOKEN may apply to any symbol or symbolizing action given as an indication of good faith, obligation, or indebtedness 〈impossible to employ the Canadian Eskimos in the armed forces . . . (although a *token* group of four men from Aklavik has been officially enlisted) —Farley Mowat〉 〈has not yet faced up to a service pay raise, though even a *token* raise could indicate to the regulars that they are held in some esteem —H. W.Baldwin〉 PAWN indicates a person or thing given as a guaranty or security and eventually redeemable 〈the folly of lending much money on such worthless *pawns*〉 HOSTAGE usually refers to a person yielded into another's hands as a guaranty of the good intentions of the person or agency performing the yielding 〈giving over their children as *hostages* to the invaders〉

²pledge \"\ *vb* -ED/-ING/-S [ME *pleggen* to become surety for, fr. MF *plegier*, fr. OF, fr. *plege*, n.] *vt* **1** : to give as a pledge : deposit (as a chattel) in pledge or pawn : make a pledge of : PAWN; *specif* : to assign as security for the repayment of a loan — compare COLLATERAL **2** : to give assurance, promise, or evidence esp. of goodwill or favor by or in drinking to: *a obs* : to drink at the invitation of or in response to a toast proposed by **b** : to drink the health of : TOAST 〈lifted his glass and *pledged* the beautiful girl〉 **3** : to bind by or as if by a pledge : PLIGHT 〈*pledged* the signatory powers to meet the common danger —*Current Biog.*〉 〈we mutually ~ to each other our lives, our fortunes, and our sacred honor —*U.S. Declaration of Independence*〉 **4 a** : to assure or promise the performance of (as by a pledge) 〈to ~ my vow, I give my hand —Shak.〉 **b** : to promise seriously : UNDERTAKE 〈I have *pledged* three stories —Malcolm Cowley〉 **5** : to cause (one) to make or sign a pledge 〈was *pledged* to join a fraternity〉 — *vi* **1** : to give or make a pledge : become surety **2** : to drink a pledge SYN see PROMISE

pledg·ee \(')pleˈjē\ *n* -s **1** : one to whom a pledge is given **2** : one who holds property as a pledge

pledg·er \'plejə(r)\ *n* -s : one that pledges

pledges *pl of* PLEDGE, *pres 3d sing of* PLEDGE

pled·get \'plejət\ *n* -s [origin unknown] **1** : a compress or small flat mass usu. of gauze or absorbent cotton that is laid over a wound or into a cavity to apply medication, exclude air, retain dressings, or absorb the matter discharged **2** : a thread of oakum used in caulking a boat

pled·gor *or* **pled·geor** \(')pleˈjō(ə)r, 'pleja(r)\ *n* -s : PLEDGER

pleg·a·dis \'plegədəs\ *n, cap* [NL, fr. Gk *plēgad-*, *plēgas* scythe, sickle, fr. the stem of *plēssein* to strike — more at PLAINT] : a genus of birds (family Threskiornithidae) includ

(fr. the stem of *plēsseln* to strike) + NL *-ia*] : paralysis of specified nature 〈*paraplegia*〉

-ple·gy \'plējē, -jī\ *n comb form* -ES [NL *-plegia*] : paralysis of a specified nature

ple·iad \'plīəd *also* 'plīad\ *n* -s [F *Pléiade*, a group of 7 16 cent. Fr. poets, fr. MF, fr. *Pléiade*, a group of 7 tragic poe of ancient Alexandria, fr. Gk *Pleiades*, *Plēiades*, pl. : *Pleiades*, *Plēiades*, 7 stars in the constellation Taurus] : group or cluster of illustrious or brilliant persons or thin usu. seven in number 〈educated a brilliant ~ of great maste of painting —*Encyc. Americana*〉

ple·i·dae \'plēəˌdē\ *n pl, cap* [NL, fr. *Plea*, type genus (f Gk *plein* to sail, float, swim) + *-idae* — more at FLOW] : widely distributed family of small aquatic bugs

¹plein air \'plān-\ *n* [F, lit., full air] : outdoor daylight 〈 paint in *plein air*〉 〈to render the high tonal values of the loc *plein air*〉

²plein air \"\ *adj* **1** : relating to the method, action, or pro uct of painting in outdoor daylight **2** : of, relating to, constituting a French art movement starting about 1863 whi attempted to represent effects of outdoor light and air observable in the studio

plein-air·ism \plā'na(a),rizəm\ *or* **plein-air·isme** \ple erēs(m⁹), -ēz(m⁹), -s(mə), -z(mə)\ *n* -S [F *pleinairisme*, *plein air* + *-isme* -ism] : the study, action, or product of plei air painting; *specif* : the plein air art movement in Franc

plein-air·ist \-rəst\ *or* **plein-air·iste** \-ēst\ *n* -s [F *pleinairiste*, fr. *plein air* + *-iste* -ist] : an adherent or follower of theory, method, or practice of plein air painting

plein jeu \'plā⁹-\ *n, often cap P&J* [F, lit., full play] : mixture stop in a pipe organ including the unison, octave, an fifth

pleio- *or* **pleo-** *or* **plio-** *comb form* [Gk *pleiōn*, *pleōn* — more PLUS] **1** : more 〈*Pleiocene*〉 〈*pleomorphism*〉 〈*pleomastis* 〈*Pliocene*〉 **2** : Pliocene 〈*Plio*hippus〉 〈*Plio*pithecus〉

plei·o·bar \'plīəˌbär\ *n* [ISV *pleio-* + Gk *baros* weight - more at GRIEVE] **1** : an area of high barometric pressu **2** : an isobar of high pressure

plei·om·ery \plī'ämə[…]rē\ *n* -ES [ISV *pleio-* + *-mery*] : a stat of having more than the normal number of floral leaves

pleiomorphic *var of* PLEOMORPHIC

plei·on \'plīˌän\ *n* -s [NL, fr. Gk *pleiōn* more, greater — mor at PLUS] : a region in meteorology of positive departure fro the normal of an element (as pressure, temperature, rainfall — **plei·o·ni·an** \(')plīōnēən\ *adj*

plei·o·phyl·ly \'plīə,filē\ *n* -ES [ISV *pleio-* + *-phylly* (f *-phyll* + *-y*)] : an abnormal increase or excess in the numbe of leaves or leaflets

plei·o·taxy \'plīəˌtaksē\ *n* -ES [ISV *pleio-* + *-taxy*] : develop ment of more than the normal number of parts (as bracts in flower or inflorescence)

plei·o·trop·ic \'plīəˌträpik\ *adj* [*pleio-* + *-tropic*] *of a gen* : producing more than one effect : having multiple pheno typic expressions 〈a ~ gene that induces shortening of the ea and reduces general body size has been reported in the mouse — **plei·o·trop·i·cal·ly** \-pək(ə)lē\ *adv*

plei·ot·ro·pism \plī'ä·trəˌpizəm\ *n* -S [*pleio-* + *-tropism*] : condition produced by a pleiotropic gene

plei·ot·ro·py \-rəpē\ *n* -ES [ISV *pleio-* + *-tropy*] : the quality or state of being pleiotropic

pleis·to·cene \'plīstəˌsēn\ *adj, usu cap* [ISV *pleisto-* (fr. Gk *pleistos* most) + *-cene*; akin to Gk *pleiōn* more — more a PLUS] : of, relating to, or constituting a subdivision of th Quaternary — see GEOLOGIC TIME table

plen *abbr* plenipotentiary

plena *pl of* PLENUM

ple·na·ri·ly \'plēnərəlē, 'plen-, plə'ner-\ *adv* : in a plenary manner 〈an empire already beginning to enter the Common wealth, and destined to enter it ~ —Ernest Barker〉

ple·nar·ty \'plēnə(r)d-ē, 'plen-\ *n* -ES [ME *plenerte*, fr. MF *plenierté*, *plenerté*, fr. *plenier*, *plener* complete, full (fr. *plein*, *plen* full, fr. L *plenus*) + *-té* -ty — more at FULL] : the state of a benefice when occupied

ple·na·ry \'plēnərē, 'plen-, -ri\ *adj* [LL *plenarius*, fr. L *plenus* full + *-arius*, -ary — more at FULL] **1** : complete in every respect : ABSOLUTE, PERFECT, UNQUALIFIED 〈the ~ inspiration of the Bible —M.R.Cohen〉 〈a ~ state of cleanliness —Arnold Bennett〉 **2** : fully attended or constituted : including all entitled to be present 〈a ~ session of the legislature〉 〈~ assembly〉 **3** : including all steps in due order : COMPLETE 〈a ~ proceeding〉 — opposed to *summary*

plenary council *n* [trans. of LL *concilium plenarium*] : an assembly of the ecclesiastical authorities of a country or larger territory

plenary indulgence *n* [trans. of ML *plenaria indulgentia*] *Roman Catholicism* : a remission of the entire temporal punishment due to sin

plenary inspiration *n* : divine inspiration covering all subjects dealt with — compare VERBAL INSPIRATION

ple·ne \'plēnē\ *adj* [L *plenus* full; trans. of LHeb *mālē*] : having the full orthographic or grammatical form given in Masoretic texts as corrections of the defective forms that appeared in ancient biblical texts 〈~ spelling〉 〈~ writings〉 — compare KERE, KETHIB

ple·no ad·mi·ni·stra·vit \'plēnōəd,minə'strāvət\ [L] : he has fully administered — used at law referring to a plea in bar by an executor or administrator when sued by a creditor, heir, or legatee

ple·ni·lune \'plēnəˌlün, 'plen-\ *n* -S [ME, fr. L *plenilunium*, fr. *plenus* full + *-i-* + *-lunium* (fr. *luna* moon) — more at FULL, LUNAR] : the time of full moon; *also* : a full moon

plen·i·po \'plenəˌpō\ *n* -S [by shortening] : PLENIPOTENTIARY

ple·nip·o·tence \plə'nipəd-ən(t)s\ *n* -S : the quality or state of being invested with authority or power to transact business

ple·nip·o·tent \-nt\ *adj* [LL *plenipotent-*, *plenipotens*, fr. L *plenus* full + *-i-* + *potent-*, *potens* able, powerful — more at FULL, POTENT] : PLENIPOTENTIARY

plen·i·po·ten·tial \'plenəpəˌtenchəl\ *adj* [LL *plenipotent-*, *plenipotens* + E *-ial*] : PLENIPOTENTIARY

¹plen·i·po·ten·tia·ry \-chərē, -chēˌerē, -riˌ\ *adj* [ML *plenipotentiarius*, adj. & n., fr. LL *plenipotent-*, *plenipotens* + *-i-* + L *-arius* -ary] **1** : containing or conferring full power : invested with full power : ABSOLUTE, UNLIMITED 〈countries with ~ parliaments —E.V.Rostow〉 **2** : of or relating to a plenipotentiary

²plenipotentiary \"\ *n* -ES [ML *plenipotentiarius*] : a person invested with full power to transact any business; *esp* : MINISTER PLENIPOTENTIARY

plen·ish \'plenish\ *vt* -ED/-ING/-ES [ME (Sc dial.) *plenyssen*, fr. MF *pleniss-*, stem of *plenir*, fr. OF, fr. *plein*, *plen* full, fr. L *plenus* — more at FULL] **1 a** : to fill up **b** *chiefly dial* : REPLENISH **2** *chiefly Brit* : to equip (a house or farm) with furnishings

plenishing *n* -S [fr. gerund of *plenish*] *chiefly Scot.* : furniture, equipment, and stock esp. as needed to run a farm

ple·nist \'plēnəst\ *n* -S [L *plenus* full, complete + E *-ist*] : one who maintains that there are no vacuums in nature — compare VACUIST

plen·i·tude \'plenəˌtüd, -ˌtyüd\ *or* **plent·i·tude** \-ntəˌ\ *n* -S [*plenitude* fr. ME, fr. MF or L; MF, fr. L *plenitudo*, fr. *plenus* full + *-i-* + *-tudo* -tude; *plenitude* alter. (influenced by *plenty*) of *plenitude* — more at FULL] **1** : the quality or state of being full : absolute fullness : COMPLETENESS 〈death . . . in the ~ of health, vigor, and aspirations —George Grote〉 〈loves and sorrows that are great are destroyed by their own ~ —Oscar Wilde〉 **2** : a more than ample amount or number : great sufficiency : ABUNDANCE 〈the ~ of plants around them —Napier Devitt〉 〈sea gulls gorge themselves on a ~ of fish —Renate O'Connell〉 〈her long skirts are voluminous and worn over a ~ of petticoats —Mabel S. Shelton〉 〈exchange . . . their Old World stone cottages and thatched barns for a ~ of lumber —*Amer. Guide Series: Minn.*〉 **3** *of a flower* : DOUBLENESS **4** *heraldry* : fullness of the moon

plen·i·tu·di·nous \,plenəˌtüd-nəs, -ˌtyüd-\ *adj* [L *plenitudin-*, *plenitudo* plenitude + E *-ous*] **1** : characterized by plenitude

abundance, plenty + *-if* -ive) + *-eus, -ous* -ous — more at PLENTY] **1** : bearing or yielding abundance : FRUITFUL, PRODUCTIVE — usu. used with *in* or *of* ⟨the seasons had been ~ in corn —George Eliot⟩ **2** : constituting, characterized by, or existing in plenty ⟨gathered gold and silver, and ~ . . . goods —William Morris⟩ (~ grace with thee is found—Charles Wesley⟩ **3** *obs* : giving liberally : BOUNTIFUL ⟨with ~ hand, bring clover grass —John Dryden⟩ **SYN** see PLENTIFUL

plen·te·ous·ly *adv* [ME *plentivously, plentiously*, fr. *plentivous, plentious* + *-ly*] : in a plenteous manner ⟨he provided for her ~ while he lived —S.H.Adams⟩

plen·te·ous·ness *n* -ES [ME *plentivousnesse, plentiousnesse*, fr. *plentivous, plentious* + *-nesse* -ness] : the quality or state of being plenteous

plen·ti·ful \'plentəfəl, -tēf-\ *adj* **1** : containing or yielding plenty : FRUITFUL, OPULENT ⟨a ~ land⟩ ⟨a ~ supper of roast and boiled beef and mutton —W.H.Hudson †1922⟩ **2** : characterized by, constituting, or existing in plenty : NUMEROUS ⟨the deer are as ~ as the vast wilderness will support —S.H. Holbrook⟩ ⟨his religion . . . summoned him to serve the ~ reform movements of the day —V.L.Parrington⟩

SYN PLENTEOUS, AMPLE, ABUNDANT, COPIOUS: these adjectives have the common meaning of more than adequate or sufficient yet not in excess. That is PLENTIFUL or PLENTEOUS of which there is a rich or full, usu. more than full, supply ⟨a *plentiful* supply of books⟩ ⟨butter is cheap when it is *plentiful*, and dear when it is scarce —G.B.Shaw⟩ ⟨aluminum, one of the world's most *plentiful* elements —*Amer. Guide Series: Pa.*⟩ ⟨a *plenteous* number of individual poems —*College English*⟩ ⟨a *plenteous* harvest —J.G.Frazer⟩ That is AMPLE which is generously sufficient to satisfy a particular requirement ⟨manufacturers had *ample* supplies on hand to meet the emergency —*Current Biog.*⟩ ⟨provide *ample* opportunity for fieldwork with Indian tribes —D.G.Mandelbaum⟩ ⟨*ample* proof of the power of words —*advt*⟩ ABUNDANT suggests a greater or richer supply than does PLENTIFUL ⟨her unselfish and *abundant* interests —Rex Ingamells⟩ ⟨the many small denominational colleges so *abundant* throughout the Middle West —G.P. Merrill⟩ COPIOUS, not quite interchangeable with PLENTIFUL, puts emphasis upon largeness of supply more than on fullness or richness ⟨his papers were *copious* and bizarre, and it took me nearly two hours to find the will —John Cheever⟩ ⟨his *copious* flaxen curls —Richard Garnett †1906⟩ ⟨washed down with *copious* drafts of beer —Green Peyton⟩

plen·ti·ful·ly \-f(ə)lē, -li\ *adv* : in more than adequate numbers or quantity : ABUNDANTLY

plen·ti·ful·ness *n* -ES : the quality or state of being plentiful

plentitude *var of* PLENITUDE

¹plen·ty \'plentē, -ti\ *n* -ES [ME *plente, plentee, plentie*, fr. OF *plenté*, fr. L *plenitat-, plenitas* fullness, abundance, fr. *plenus* full + *-itat-, -itas* -ity — more at FULL] **1 a** : a more than adequate number, quantity, or amount : a full supply : enough and to spare ⟨always gave them ~ of time —Seymour Blau⟩ ⟨cowboys on the range still do ~ of roping —S.E.Fletcher⟩ ⟨would have ~ of visitors —H.E.Scudder⟩ **b** : a large number or amount of something — used with *a* ⟨a ~ of things to be done —Verne Athanas⟩ ⟨what they asked for they got, and they asked for a ~ —*Amer. Mercury*⟩ **2 a** : an abundance esp. of material things that permit a satisfactory life : a condition or time of abundance ⟨the general feeling of ~ in this rich land —Pearl Buck⟩ ⟨a peace that seemed to bring ~ in its train —Stringfellow Barr⟩ **b plenties** *pl* : plentiful amounts esp. of things that constitute material comfort ⟨drink *plenties* of this milk too —J.L.Weldon⟩ **3** : the quality or state of being copious : PLENTIFULNESS — often used with *in* ⟨down by the lake the daffodils were now in their ~ —Victoria Sackville-West⟩ ⟨will . . . gain pleasure and profit in ~ —H.M. Parshley⟩

²plenty \"\ *adj* [ME *plente*, fr. *plente*, n.] **1** : ample in amount or supply : PLENTIFUL ⟨if reasons were as ~ as blackberries —Shak.⟩ ⟨bread is never too ~ in Indian households —Willa Cather⟩ **2 a** *chiefly dial* : existing in large quantity or number ⟨who has conies ~ to dispose of cheap —Jeremy Bentham⟩ **b** : AMPLE, MANY : more than enough ⟨he could get ~ men . . . to do his bidding —W.C.Tuttle⟩ ⟨there is ~ work to be done —*Time*⟩ ⟨you'll have ~ support from the other districts —Ralph Ellison⟩

³plenty \"\ *adv* : more than sufficiently : ABUNDANTLY, PLENTIFULLY ⟨they will talk ~, but not about themselves —J.L.Phelan⟩ ⟨her style is ~ vigorous enough —Florence Bullock⟩ ⟨the nights were ~ cold —F.B.Gipson⟩ ⟨a transatlantic holiday is ~ exciting —T.H.Fielding⟩

¹plenum \'plenəm, -lēn-\ *n, pl* **plenums** \-mz\ *or* **plena** \-nə\ [NL, fr. L, neut. of *plenus* full — more at FULL] **1 a** : a space or all space every part of which is full of matter — opposed to *vacuum* **b** (1) : a condition in which the pressure of the air in an enclosed space is greater than that of the outside atmosphere (2) : an enclosed space in which such a condition exists; *esp* : a plenum chamber **2 a** : a general assembly of all members esp. of a legislative body **b** : the entire membership of a specific group **3** : the quality or state of being full

²plenum \"\ *adj* : relating to or being a space in which a plenum exists ⟨a ~ chamber in a hot-air furnace⟩ ⟨the ~ system forces air into the room, causing a leakage outward although exhaust ducts may also be provided —V.M.Ehlers & E.W.Steel⟩

plenum ventilation *n* : a system of ventilation that applies the motive force at the inlets, drives the air through the rooms which become plenums, and avoids the incoming of cold drafts

pleo- — see PLEIO-

ple·o·chro·ic \ˌplēəˈkrōik\ *adj* [ISV *pleio-* + *-chroic*] : of, relating to, or having pleochroism

ple·och·ro·ism \plēˈäkrəˌwizəm\ *n* -S [ISV *pleochroic* + *-ism*] : the property possessed by a crystal of showing different colors when viewed by light that vibrates parallel to different axes — see DICHROISM, TRICHROISM

ple·och·ro·ous \-rəwəs\ *adj* [*pleio-* + *-chroous*] : PLEOCHROIC

ple·o·cy·to·sis \ˌplēōˌsīˈtōsəs\ *n, pl* **pleocyto·ses** \-ˈtōˌsēz\ [NL, fr. *pleio-* + *cyt-* + *-osis*] : an abnormal increase in the number of cells (as lymphocytes) in the cerebrospinal fluid

ple·o·dont \ˈplēəˌdänt\ *adj* [ISV *pleo-* (fr. Gk *pleos* full) + *-odont*; akin to Gk *plērēs* full — more at FULL] : having solid teeth ⟨~ reptiles⟩

ple·o·mas·tia \ˌplēəˈmastēə\ *n* -S [NL, fr. *pleio-* + *-mastia*] : a condition of having more than two mammary glands or nipples — **ple·o·mas·tic** \-ˈmastik\ *adj*

ple·o·ma·zia \-ˈmāz(h)ēə\ *n* -S [NL, fr. *pleio-* + *maz-* + *-ia*] : PLEOMASTIA

ple·o·me·tro·sis \ˌplēōməˈtrōsəs\ *n, pl* **pleometro·ses** \-rōˌsēz\ [NL, fr. *pleio-* + Gk *mētēr* queen bee, mother + NL *-osis* — more at MOTHER] : the occurrence of several queens in a single nest of ants

ple·o·me·trot·ic \ˌplēəməˈträd·ik\ *adj* [fr. NL *pleometrosis*, after such pairs as NL *narcosis*: E *narcotic*] : of, relating to, or characterized by pleometrosis

ple·o·morph \ˈplēəˌmȯrf\ *n* -S [back-formation fr. *pleomorphic*] : POLYMORPH 1, 2

ple·o·mor·phic \ˌplēəˈmȯrfik\ *also* **plei·o·mor·phic** \ˌplīə-\ *adj* [ISV *pleomorphism* + *-ic*] : of, relating to, or characterized by pleomorphism

ple·o·mor·phism \ˌplēəˈmȯ(r),fizəm\ *n* -S [ISV *pleio-* + *-morphism*] **1** : the occurrence of more than one distinct form in the life cycle of some plants (as the rusts) **2** : POLYMORPHISM a

ple·o·mor·phous \ˌplēəˈmȯrfəs\ *adj* [ISV *pleomorphism* + *-ous*] : PLEOMORPHIC

ple·o·mor·phy \ˈplēəˌmȯrfē\ *n* -ES [*pleomorphous* + *-y*] : PLEOMORPHISM

ple·on \ˈplēˌän\ *n* -S [NL, fr. Gk *pleon*, pres. part. of *pleein* to sail; fr. the fact that it bears the swimming limbs — more at FLOW] **1** : the abdomen of a crustacean **2** : the telson of a king crab — **ple·o·nal** \-ənᵊl\ *or* **ple·on·ic** \(ˈ)plēˈänik\ *adj*

ple·o·nasm \ˈplēəˌnazəm\ *n* -S [LL *pleonasmus*, fr. Gk *pleonasmas*, fr. *pleonazein* to be more, to be in excess, to be redundant, fr. *pleon*, neut. of *pleiōn, pleōn* more] **1 a** : iteration **2** : SUPERFLUITY ⟨a ~ or overflow of that great kindness —Samuel Purchas⟩

ple·o·nas·te \ˈplēəˌnast\ *n* -S [F, fr. Gk *pleonastos* abundant, fr. *pleonazein* to be more; fr. the many faces of the crystal] : CEYLONITE

ple·o·nas·tic \ˌplēəˈnastik\ *adj* [fr. *pleonasm*, after such pairs as E *spasm: spastic*] : of, relating to, or having the characteristics of pleonasm — **ple·o·nas·ti·cal·ly** \-tək(ə)lē\ *adv*

pleonastic genitive *n* : DOUBLE POSSESSIVE

ple·o·nec·ta \ˌplēəˈnektəə\ *n* -S [Gk, fr. *pleonektein* to be greedy, to have or want more, fr. *pleon*, neut. of *pleiōn, pleōn* more + *echein* to have — more at PLEIO-, SCHEME] : AVARICE, COVETOUSNESS

ple·oph·a·gous \plēˈäfəgəs\ *adj* [*pleio-* + *-phagous*] **1** : eating a variety of foods **2** *of a parasite* : not restricted to a single kind of host

ple·o·pod \ˈplēəˌpäd\ *n* -S [*pleio-* (fr. Gk *pleōn*, pres. part. of *plein* to sail) + *-pod*; fr. its being used for swimming — more at FLOW] : an abdominal limb of a crustacean

ple·op·o·dite \plēˈäpəˌdīt\ *n* -S [*pleopod* + *-ite*] : PLEOPOD

ple·o·sponge \ˈplēəˌspənj\ *n* [NL *Pleospongia*, fr. *pleio-* + *-spongia*] : any of various Lower and Middle Cambrian calcareous, cylindrical or cup-shaped, double-walled, porous fossils that may be the remains of sponges or primordial precursors of the true corals

ple·os·po·ra \ˌplēəˈäspərə\ *n, cap* [NL, fr. *pleio-* + *-spora*] : a genus of ascomycetous fungi (family Sphaeriaceae) having brown muriform ascospores in scattered or gregarious perithecia

ple·o·spo·ra·ce·ae \ˌplēəspəˈrāsēˌē\ *n pl, cap* [NL, fr. *Pleospora* + *-aceae*] : a family of ascomycetous fungi (order Sphaeriales) that is sometimes combined with Mycosphaerellaceae and that includes parasitic fungi which cause stem or leaf spot diseases or rots of economic plants

pler·er·gate \ˈpliˈrərˌgāt\ *n* [Gk *plērēs* full + E *ergate* — more at FULL] : REPLETE

ple·ro·cer·coid \ˌpliərəˈsərˌkȯid\ *n* -S [*plero-* (fr. Gk *plērēs* full) + *cerc-* + *-oid*] : the solid elongate infective larva of pseudophyllidean and some other tapeworms usu. occurring in the muscles of fishes — compare CYSTICERCUS, PROCERCOID

ple·ro·ma \plōˈrōmə\ *n, pl* **pleromas** *or* **pleromata** [LL, fullness, fr. Gk *plērōma* that which fills, fr. *plēroun* to make full, fr. *plērēs* full] **1** : PLENITUDE: **a** : the fullness of divine excellencies and powers ⟨the ~ of the Godhead resides in Christ corporeally —Philip Schaff⟩ **b** : the fullness of being of the divine life held in Gnosticism to comprise the aeons as well as the uncreated monad or dyad from which they have proceeded **2** [NL, fr. LL, fullness] : PLEROME — **ple·ro·mat·ic** \ˌplirəˈmad·ik\ *adj*

pleroma violet *n* : a moderate purple that is bluer and duller than manganese violet or heliotrope (sense 4a) and bluer than average amethyst

ple·rome \ˈpliˌrōm\ *also* **ple·rom** \-irəm\ *n* -S [G *plerom*, fr. LL *pleroma*] **1** : the central core of primary meristem of a plant or plant part that according to the histogen theory gives rise to the stele **2** : the stelar region in a root tip

ple·roph·o·ry \plōˈräfərē\ *n* -ES [Gk *plērophoria*, fr. *plērophorein* to bring full measure, to fulfill, fr. *plērēs* full + *phorein*, freq. of *pherein* to carry — more at BEAR] *archaic* : complete assurance ⟨the ~ of faith —John Trapp⟩

ple·rot·ic water \plōˈrädˌik-\ *n* [*plerotic* fr. L *pleroticus* filling up, fr. Gk *plērōtikos*, fr. *plēroun* to make full + *-ikos* -ic] : GROUNDWATER

plesi- *or* **plesio-** *comb form* [NL *plesi-*, fr. Gk *plēsi-, plēsio-*, fr. *plēsios*, fr. *pelas* near — more at FELT] : close : near ⟨*plesio*morphous⟩ ⟨*plesio*saurus⟩

ple·si·an·thro·pus \ˌplēsēˈan(t)thrəpəs, -sēˌan'thrōpəs\ *n, cap* [NL, fr. *plesi-* + *-anthropus*] : a genus of australopithecine apes with a distinctly humanlike skull — compare STERKFONTEIN APE-MAN

ple·si·o·bi·o·sis \ˌplēsēōˌbīˈōsəs\ *n, pl* **plesiobio·ses** \-ōˌ-sēz\ [NL, fr. *plesi-* + *-biosis*] : casual association of two or more colonies of social insects

ple·si·o·saur \ˈplēsəˌsȯ(ə)r\ *n* -S [NL *Plesiosauria*] : a reptile or fossil of the suborder Plesiosauria

ple·si·o·sau·ria \ˌplēsəˈsȯrēə\ *n pl, cap* [NL, fr. *plesi-* + *-sauria*] **1** : a suborder of Sauropterygia comprising Mesozoic marine reptiles with dorsoventrally flattened bodies and limbs modified into paddles — compare PLESIOSAURUS **2** *in some classifications* : an order of Reptilia nearly coextensive with Sauropterygia — **ple·si·o·sau·ri·an** \ˌplēsēəˈsȯrēən\ *adj or n* — **ple·si·o·sau·roid** \-ōˌrȯid\ *adj*

ple·si·o·sau·rus \ˌplēsēəˈsȯrəs\ *n* [NL, fr. *plesi-* + *-saurus*] **1** *cap* : a genus of marine reptiles (suborder Plesiosauria) of the Mesozoic of Europe and No. America having a very long neck, a small head, and all four limbs developed as paddles for swimming **2** *pl* **plesiosau·ri** \-ōˌrī\ : any reptile of the genus *Plesiosaurus*

ple·sio·type \ˈplēsēəˌtīp\ *n* [*plesi-* + *type*] **1** : a specimen that is both a homeotype and a hypotype **2** : a specimen identified by other than the original author of a species

ples·site \ˈpleˌsīt\ *n* -S [G *plessit*, prob. fr. Gk *plēsī-* plesi- + G *-it* -ite] : a mineral consisting of an intimate intergrowth of kamacite and taenite in meteorites

ples·sor \ˈplesəˌ(r)\ *n* -S [by alter.] : PLEXOR

ples·sy's green \(ˈ)pleˌsēz-\ *n, usu cap P* : a bluish green pigment consisting essentially of hydrated chromium phosphate $CrPO_4.nH_2O$

plet \ˈplet\ *dial var of* PLAT

pleth·o·don \ˈplethəˌdän\ *n* [NL *pleth-* (fr. Gk *plēthos* mass, magnitude, fr. *plēthein* to be full) + *-odon*] **1** *cap* : the type genus of Plethodontidae comprising New World terrestrial salamanders that lay large yolk-filled eggs and do not pass through an aquatic larval period — see RED-BACKED SALAMANDER **2** -S : a salamander of the genus *Plethodon*

¹pleth·o·dont \-nt\ *also* **pleth·o·don·tid** \ˌpleˈdäntəd\ *adj* [NL *Plethodontidae*] : of or relating to the Plethodontidae

²plethodont \"\ *also* **plethodontid** \"\ *n* -S : a salamander of the family Plethodontidae

pleth·o·don·ti·dae \ˌpleˈdäntəˌdē\ *n pl, cap* [NL, fr. *Plethodont-, Plethodon*, type genus + *-idae*] : a large family of small chiefly No. American terrestrial or freshwater salamanders that have neither lungs nor gills as adults — see PLETHODON

pleth·o·ra \ˈplethərə *sometimes* plāˈthōrə *or* -ˈthōrə\ *n* -S [ML, fr. Gk *plēthōra* fullness, plethora, fr. *plēthein* to be full — more at FULL] **1** : a bodily condition characterized by an excess of blood and marked by turgescence and a florid complexion **2** : an often undesirable or hampering superfluity : EXCESS, PROFUSION ⟨a ~ of . . . attractions to look at —Janet Flanner⟩ ⟨to plow through a ~ of references —Dwight MacDonald⟩ ⟨the ~ of distracting activities —Virgil Thomson⟩ **3** : a defect of wood resulting from excessive and uneven growth of the tissues

pleth·o·ric \ˈplethərik, plāˈthȯr, -ˈthär-, -rēk\ *adj* [LL *plethoricus*, fr. Gk *plēthōrikos*, fr. *plēthōra* plethora + *-ikos* -ic] **1** : marked by plethora ⟨a ~ condition⟩ **2** : marked by excess or profusion ⟨that ~ opulence —*Asiatic Annual Register*⟩ ⟨~ volumes which slumber in decorous old libraries —J.H. Burton⟩

pleth·o·ry \ˈplethərē\ *n* -ES [fr. *plethoric*, after such pairs as E *allegoric: allegory*] *archaic* : PLETHORA ⟨the state of the nation is full even to ~ —Edmund Burke⟩

pleth·ron \ˈplethrənˌ *n, pl* **pleth·ra** \-rə\ [Gk] **1** : an ancient Greek unit of length equal to 100 Greek feet or 101.2 modern feet **2** : a unit of area equal to one square plethron

ple·thys·mo·gram \plāˈthizməˌgram, -ism-\ *n* [ISV *plethysmo-* (fr. *plethysmograph*) + *-gram*] : a tracing made by a plethysmograph

ple·thys·mo·graph \-rafˌ, -rāfˌ\ *n* [ISV *plethysmo-* (fr. Gk *plēthysmos* multiplication, increase, fr. *plēthynein* to increase, fr. *plēthys, plēthos* mass, magnitude) + *-graph*; orig. formed as It *pletismografo*] : an instrument for determining and registering variations in the size of an organ or limb and in the amount of blood present or passing through it

ple·thys·mo·graph·ic \-ˌrafˈik\ *adj* : of, relating to, or made by a plethysmograph — **ple·thys·mog·ra·phy** \ˌplethizˈmägrəfē\ *n* -ES

plēthysmos multiplication + NL *thallus*] : a dwarf filament thallus occurring in the life cycle of various brown algae : bearing at what appears to be a juvenile stage either uniloc or plurilocular sporangia

pleuri- *or* **pleuri-** *or* **pleuro-** *comb form* [NL, fr. L, fr. Gk, s rib, fr. *pleura*] **1 a** : pleura ⟨*pleurectomy*⟩ ⟨*pleurisepts* ⟨*pleurogenic*⟩ **b** : pleura and ⟨*pleuropericarditis*⟩ ⟨*ple* pedal⟩ **2** : side : lateral ⟨*pleurite*⟩ ⟨*pleurocentrum*⟩ **3** : ⟨*pleural*⟩

¹pleu·ra \ˈplůrə, ˈplīrə\ *n, pl* **pleu·rae** \-rē, -rī\ *or* **pleu** [ML, fr. Gk, side, rib — more at PLEURISY] **1 a** : either of a p of two-walled sacs of serous membrane each lining one lat half of the thorax, having an inner layer closely adherent to corresponding lung, reflected at the root of the lung to for parietal layer that adheres to the walls of the thorax, the pe cardium, upper surface of the diaphragm, and adjacent pa and containing a small amount of serous fluid that minimi the friction of respiratory movements **b** : the membran tissue making up the pleurae **2** [NL, fr. Gk] : a latera located body part; *specif* : PLEURON

²pleura *pl of* PLEURON *or of* PLEURUM

-pleu·ra \ˈplůrə, ˈplīrə\ *n comb form* -S [NL, fr. ML *pleu* : lining : girdle ⟨*endopleura*⟩ ⟨*epipleura*⟩

pleu·ra·can·thea \ˌplůrəˈkan(t)thēə\ *or* **pleu·ra·can·thi** \-rəˌkanˈthīˌnī\ *or* **pleu·rac·an·tho·dii** \plůˌrakənˈthōdē, [*pleuracanthea* fr. NL, fr. *pleur-* + *-acanthea* (fr. *-acanthu pleuracanthini* fr. NL, fr. *pleur-* + *acanth-* + *-ini; pleuracı thodii*, fr. NL, fr. *pleur-* + *Acanthodii*] *syn of* ICHTHYOTOMI

pleu·ra·can·thus \ˌplůrəˈkan(t)thəs\ *n, cap* [NL, fr. *pleur- -acanthus*] : a genus (the type of the family Pleuracanthidae) Paleozoic sharks of the Carboniferous and Lower Permian Europe and No. America having a subterminal mouth, lo dorsal fin, and a strong serrated spine on the lower jaw

¹pleu·ral \ˈplůrəl, ˈplīr-\ *adj* [*pleur-* + *-al*] **1** : of or relati to the pleura or the sides of the thorax **2** : of or relating tc pleuron or pleurite

²pleural \"\ *n* -S [*pleur-* + *-al*] **1** : a bony process in a tur lying superficial to the ribs and uniting them and there forming most of the carapace **2** : a rib or long ray of bo articulating with a vertebra and extending ventrally into t abdominal wall of a fish

pleural cavity *n* **1** : the space between the two layers of pleu **2** : the chest cavity

pleural effusion *n* **1** : an exudation of fluid from the blood lymph into a pleural cavity **2** : an exudate in a pleural cavi

pleural ganglion *n* [*¹pleural*] : either of a pair of ganglia in mollusk that send nerves to the mantle and parts of the bo wall behind the head and that often lie close to or are fuse with the cerebral ganglia

pleural muscle *n* : any of several muscles that operate the i sect wing

pleural sclerite *n* : any of several plates of the pleural area the insect integument

pleur·ap·o·phys·i·al \plůˌrapəˈfizēəl\ *adj* [*pleurapophysis -al*] : of, relating to, or having the characteristics of a pleur pophysis

pleur·apoph·y·sis \ˌplůrəˈpäfəsəs\ *n* [NL, fr. *pleur- apophysis*] : a laterally or more or less ventrally directed pro ess or appendage of a vertebra forming a rib or part corr sponding to a rib : a rib that is a part of a vertebra

pleuri- — see PLEUR-

pleu·ric \ˈplůrik\ *adj* [F *pleurique*, fr. L *pleuricus* lateral, f Gk *pleurikos*, fr. *pleura* side, rib + *-ikos* -ic] : PLEURAL

pleu·ri·sy \ˈplůrəsē, ˈplůr-, -si\ *n* -ES [ME *pleresie, pluresie*, f MF *pleuresie*, fr. ML *pleuresis*, alter. of LL *pleurisis*, alter. of *pleuritis*, fr. Gk, fr. *pleura* side, rib + *-itis*; prob. akin to G *platys* flat, broad — more at PLACE] **1** : inflammation of th pleura with or without effusion of an exudate into the pleura cavity — see DRY PLEURISY, WET PLEURISY **2** [influenced i meaning by L *plur-, plus* more — more at PLUS] *obs* : EXCESS ABUNDANCE ⟨for goodness, growing to a ~, dies in his own too much —Shak.⟩

pleurisy root *n* **1** : BUTTERFLY WEED **2** : ASCLEPIAS 3a

pleu·rite \ˈplůˌrīt\ *n* -S [*pleur-* + *-ite*] **1** : any of various smal sclerites in the pleural area of an arthropod; *sometime* : PLEURON **2** : the membranous part of the lateral abdomina wall of some insects

pleu·rit·ic \(ˈ)plůˈrid·ik, (ˈ)plůˌ-, plə'r-, -it\ *adj* [modif (influenced by *pleurisy*) of MF *pleuretique* & ML *pleureticus*, fr LL *pleuriticus*, fr. Gk *pleuritikos*, fr. *pleuritis* + *-ikos* -ic] : of relating to, or suffering from pleurisy

pleu·ri·tis \plůˈrīd·əs\ *n, pl* **pleurit·i·des** \-ˈrid·əˌdēz\ [L] : PLEURISY

pleuro- — see PLEUR-

pleu·ro·bra·chia \ˌplůrəˈbrākēə\ *n, cap* [NL, fr. *pleur- brachia*] : a genus (the type of the family Pleurobrachiidae) of globose or ovoid relatively firm-bodied ctenophores

pleu·ro·branch \ˈplůrəˌbraŋk\ *also* **pleu·ro·bran·chia** \ˌ·ˈbraŋkēə\ *n, pl* **pleurobranchs** \-ks\ *also* **pleurobranchi·ae** \-kēˌē\ [*pleurobranch* ISV *pleur-* + *-branch*; *pleurobranchia* fr. NL, fr. *pleur-* + *-branchia*] : a gill of a crustacean arising from the side of the thorax — compare PODOBRANCH — **pleu·ro·bran·chi·al** \ˌ·ˈbraŋkēəl\ *or* **pleu·ro·bran·chi·ate** \-ēət, -ēˌāt\ *adj*

pleu·ro·bronchitis \ˌplůrōˈräŋkəs\ *n* [NL, fr. *pleur-* + *bronchitis*] : combined pleurisy and bronchitis

pleu·ro·cap·sa \ˌplůrəˈkapsə\ *n, cap* [NL, fr. *pleur-* + L *capsa* chest, case — more at CASE] : a genus (the type of the family Pleurocapsaceae) of branching filamentous epiphytic blue-green algae reproducing by true endospores that is sometimes isolated in a separate order

pleu·ro·carp \ˈplůrəˌkärp\ *n* -S [ISV *pleur-* + *-carp*] : a pleurocarpous moss

pleu·ro·car·pi \ˌ·ˈkär,pī\ *n pl, cap* [NL, fr. *pleur-* + *-carpi* (pl. of *-carpus*)] *in some classifications* : a group of mosses of the order Bryales comprising the pleurocarpous forms — compare ACROCARPI

pleu·ro·car·pous \ˌ·ˈkärpəs\ *also* **pleu·ro·car·pic** \-pik\ *adj* [*pleurocarpous* ISV *pleur-* + *-carpous*; *pleurocarpic* fr. *pleur-* + *-carpic*] *of a moss* : bearing the archegonia and antheridia on short lateral branches — compare ACROCARPOUS

pleu·ro·cen·tral \ˌplůrəˈsen·trəl\ *adj* [NL *pleurocentrum* + E *-al*] : of, relating to, or constituting a pleurocentrum

pleu·ro·centrum \"+\ *n* [NL, fr. *pleur-* + *centrum*] : one of a pair of dorsal and lateral elements of the centrum of the vertebra of a fish and of an extinct amphibian representing or formed from dorsal arcualia

pleu·roc·era \plůˈräsərə\ *n, cap* [NL, fr. *pleur-* + *-cera*] : a large genus of American freshwater snails (suborder Taenioglossa) having the mantle edge entire and the copulatory organ not developed — compare THIARA — **pleu·roc·er·oid** \-səˌrȯid\ *adj*

pleu·ro·cerebral \ˌplůrō+\ *adj* [*pleur-* + *cerebral*] : connecting the pleural and cerebral ganglia of a mollusk

pleu·ro·coc·cus \ˌplůrəˈkäkəs\ [NL, fr. *pleur-* + *-coccus*] *syn of* PROTOCOCCUS

pleu·ro·di·ra \ˌplůrəˈdīrə\ *n pl, cap* [NL, fr. *pleur-* + *-dira* (fr. Gk *derē, deirē* neck) — more at DER-] : an extensive group of freshwater turtles in which the neck cannot be retracted, but is bent laterally beneath the front of the carapace — compare MATAMATA — **pleu·ro·di·ran** \ˌ·ˈdīrən\ *adj or n* — **pleu·ro·dire** \ˌ·ˌdī(ə)r\ *adj or n*

pleu·ro·di·rous \ˌ·ˈdīrəs\ *adj* [NL *Pleurodira* + E *-ous*] **1** *of a turtle* : bending the neck laterally **2** : of, relating to, or being a member of the group Pleurodira

pleu·ro·dis·cus \ˌplůrəˈdiskəs\ *adj* [*pleur-* + *disc-* + *-ous*] : laterally attached to a disk — used esp. of an appendage

¹pleu·ro·dont \ˈplůrəˌdänt\ *n* -S [*pleur-* + *-odont*] : a lizard having pleurodont teeth

²pleurodont \"\ *adj* [ISV *pleur-* + *-odont*] **1** *of teeth* : consolidated with the inner surface of the alveolar ridge without sockets — compare ACRODONT **2** : having teeth that are pleurodont

pleu·ro·dyn·ia \ˌplůrəˈdinēə\ *n* -S [NL, fr. *pleur-* + *-odynia*]

isoprene occurring naturally in a cis form as the rubber hydrocarbon and in the corresponding trans form as gutta and also produced synthetically in several forms

poly·isotopic \"+\ *adj* [*poly-* + *isotopic*] : of, relating to, or consisting of more than one isotope

poly·kar·yo·cyte \,pälē'karēə,sīt, -lə'k-\ *n* -s [*poly-* + *karyo-* + *-cyte*] : OSTEOCLAST — **poly·kar·yo·cyt·ic** \'=,=,=='sid-ik\ *adj*

poly·karyon *also* **poly·caryon** \"+\ *n* [NL, fr. *poly-* + *karyon*] : a multinuclear cell or individual

poly·kary·ot·ic \+,karē'ād-ik\ *adj* [*poly-* + *kary-* + *-otic*] : having many nuclei or cells with many nuclei

poly·lem·ma \,pälē'lemə, -lə'-\ *n* -s [*poly-* + *-lemma* (as in *dilemma*)] : an argument analogous to a dilemma in which many (as more than three) alternatives are presented in the major premise

poly·lingual \,pälē, -lə+\ *adj* [*poly-* + *lingual*] : MULTILINGUAL (~ area) (a ~ journal)

poly·literal \"+\ *adj* [*poly-* + *literal*] **1** : POLYGRAPHIC (~ transposition) **2** : representing each letter by a polygraph (~ substitution)

poly·literally \"+\ *adv* : in a polyliteral manner : so as to be polyliteral

poly·lith \'=,lith\ *n* -s [*poly-* + *-lith*] : a megalithic structure (as a dolmen or stone circle) made of several or many stones — compare MONOLITH

poly·lith·ic \,=='lithik\ *adj* [*poly-* + *-lithic*] : composed of several or many stones or kinds of stone (a ~ deposit)

poly·mas·tia \,=='mastēə\ *also* **poly·mas·ty** \'=,=tē\ *n, pl* **polymastias** *also* **polymasties** [NL, fr. *poly-* + *-mastia*] : the condition of having more than the normal number of breasts — **poly·mas·tic** \'=,=tik\ *adj*

poly·mas·ti·da \,=='mastədə\ *or* **poly·mas·ti·ga** \-tigə\ *or* **poly·mas·ti·go·da** \-,mastə'gōdə\ *or* **poly·mas·ti·go·ta** \-ōd-ə\ [NL, irreg. fr. *Polymastig-*, *Polymastix*] *syn of* POLYMASTIGINA

poly·mas·ti·gi·na \-,mastə'jīnə\ *n pl, cap* [NL, fr. *Polymastig-*, *Polymastix*, genus of flagellates (fr. *poly-* + Gk *mastig-*, *mastix* whip) + *-ina* — more at MASTIG-] : an order of small plastic usu. parasitic flagellates (subclass Zoomastigina) having several flagella and including various medically or economically important forms (as members of the genera *Costia*, *Chilomastix*, *Glardia*, *Hexamita*, and *Trichomonas*) — **poly·mas·ti·gine** \'=,=,=jīn\ *adj*

1poly·mas·ti·gote \'=,=,=gōt\ *adj* [alter. of earlier *polymastigate*, fr. *poly-* + *mastig-* + *-ate*] **1** : having many flagella **2** [NL *Polymastigota*] : of or relating to the Polymastigina

2polymastigote \"\ *n* -s : a flagellate of the order Polymastigina

1poly·math \'=,=,math\ *n* -s [Gk *polymathēs* knowing much, fr. *poly-* + *-mathēs* (fr. *mathein*, *manthanein* to learn) — more at MATHEMATICAL] : one of encyclopedic learning (such a survey requires a heroic —Douglas Bush) (our most ambitious critics are ~s —R.G. Davis) — called also *polyhistor*

2polymath \"\ *or* **poly·math·ic** \'=,=,=mathik\ *adj* : learned in many fields — compare ERUDITE (masters of the subtle schools are controversial, *polymath* —T.S.Eliot) (an original, vigorous, *polymathic* mind —B.R.Redman)

po·lym·a·thy \pə'limə thē\ *n* -ES [Gk *polymathia* much learning, fr. *polymathēs* knowing much + *-ia* -y] : the character or attainments of a polymath : encyclopedic learning (scorn for mere ~ —G.W.Johnson)

poly·melia \,pälē'mēlēə, -lə'm-, -mel-, -lyə\ *also* **po·lym·e·ly** \pə'limələ\ [*pälē,mēlē*, -ēlā,m-, -mel-\ *n, pl* **polymelias** *also* **polymelies** [NL *polymelia*, fr. *poly-* + *-melia*] : the condition of having more than the normal number of limbs

poly·menorrhea *also* **poly·menorrhoea** \,pälē, -lə+\ *n* [NL, fr. *poly-* + *menorrhea*] : menstruation at abnormally frequent intervals — compare MENORRHAGIA

poly·mer \'päləmə(r), -lēm-\ *n* -s [ISV, back-formation fr. *polymeric*; prob. orig. formed in G] : a natural or synthetic chemical compound or mixture of compounds formed by polymerization and consisting essentially of repeating structural units; *esp* : HIGH POLYMER — compare COPOLYMER, DIMER, HOMOPOLYMER, ISOMER, MONOMER; MACROMOLECULE, PLASTIC, RESIN 2a, SYNTHETIC FIBER, SYNTHETIC RUBBER

po·lym·era \pə'limərə\ *n pl, cap* [NL, fr. *poly-* + *-mera*, neut. pl. of *-merus* -merous] *in some classifications* : a division of invertebrate animals having the body divided into numerous clearly defined segments

poly·me·ria \,=='mirēə, -,mə'rīə\ *n* -s [NL, fr. Gk *polymereia* condition of having many parts, fr. *polymerēs* having many parts + *-ia* -y] : the condition of having supernumerary parts or accessory organs

poly·mer·ic \,=='merik, -rēk\ *adj* [ISV *polymer-* (fr. Gk *polymerēs* having many parts, fr. *poly-* + *meros* part) + *-ic* — more at MERIT] **1** : of, relating to, or consisting of a polymer **2 a** : of, relating to, involving, or being any of a group of nonallelic identical genes that collectively control various quantitative hereditary characters — compare MULTIPLE FACTOR, POLYGENE **b** : composed of several similar parts (~ chromosomes) **3** : consisting of many segments (a ~ annelid worm) — **poly·mer·i·cal·ly** \-rik(ə)lē, -rēk-, -ĭ\ *adv*

po·lym·er·ide \pə'limə,rīd, -,rəd\ *n* -s [ISV *polymeric* + *-ide*] *chiefly Brit* : POLYMER

po·lym·er·ism \pə'limə,rizəm; 'pälməə,rizəm, -lēm-\ *n* -s : the quality or state of being polymeric

po·lym·er·iz·able \pə'limə,rīzəbəl, ,=,=='=\ ; 'päləm-, -lēm-, ,=='=\ *adj* : capable of polymerizing

po·lym·er·i·zate \pə'limərə,zāt; ,pälə'merə,zāt, -lē'm-\ *n* -s [ISV, prob. back-formation fr. *polymerization*] : a product of polymerization : POLYMER

po·lym·er·i·za·tion \pə,limərə'zāshən, ,päləm-, ,pälēm-, -,rī'z-\ *n* -s [ISV *polymer* + *-ization*] **1 a** : a chemical reaction in which two or more small molecules combine to form larger molecules that contain repeating structural units of the original molecules and that have the same percentage composition as the small molecules if the small ones were all of the same kind : the union of monomers to form polymers — see ADDITION POLYMERIZATION, CONDENSATION POLYMERIZATION, COPOLYMERIZATION; compare POLYCONDENSATION **b** : the state of being polymerized **2** : ASSOCIATION 7 **3** : reduplication of parts in the animal body

po·lym·er·ize \pə'limə,rīz, 'päləm-, 'pälēm-\ *vb* -ED/-ING/-S *see -ize in Explan Notes* [*polymer* + *-ize*] *vt* : to combine (small molecules) chemically into larger or esp. very large molecules : subject to polymerization ~ *vi* : to form larger molecules from small molecules : undergo polymerization

po·lym·er·iz·er \-zə(r)\ *n* -s : an operator of polymerization equipment

po·lym·er·ous \pə'limərəs\ *adj* [*poly-* + *-merous*] **1** : having many parts or members in a whorl **2** [*polymer* + *-ous*] : POLYMERIC 1

polymer tempera *n* : an aqueous plastic-based paint used esp. in fine arts

po·lym·ery \pə'limərē, 'pälə,merē, 'pälē,-\ *n* -ES [ISV, fr. NL *polymeria*] : polymeric condition (doubling of floral organs is a common manifestation of ~)

poly·me·ter \'pälē,mēd-ə(r), -lə,m-; pə'liməd--\ *n* [ISV *poly-* + *-meter*] : any of various measuring instruments capable of indicating two or more quantities

poly·methine \,pälē, -lə+\ *adj* [*poly-* + *methine*] : consisting of or containing a series of methylidyne groups (~ chain)

polymethine dye *n* : any of a class of dyes (as cyanines or merocyanines) characterized by a resonance structure containing a conjugated chain of carbon atoms that is at least in part an open chain [as in $—CH(=CH—CH)_n=$] attached to two polar atoms (as two amino nitrogen atoms either one of which is considered to be positively charged) — see DYE table I

poly·methylene \"+\ *n* [ISV *poly-* + *methylene*] **1** : a hydrocarbon constituted of methylene groups: as **a** : CYCLOPARAFFIN **b** : a polymer of high molecular weight that resembles polyethylene except for its entirely linear and unbranched structure and that is usu. made from diazomethane by loss of nitrogen **2** : a bivalent radical $—(CH_2)_n—$ consisting of a series of methylene groups (~ halides)

poly·metric \"+\ *adj* [*poly-* + *metric*] : relating to, exhibiting, involving, or employing a variety of meters

po·lym·e·try \pə'limə·trē\ *n* -ES [*polymetric* + *-y*] : the combination of different prosodic meters; *esp* : the use of different meters in different lines of the same poem or the same stanza

poly·microbic *or* **poly·microbial** \,pälē, -lə+\ *adj* [*poly-* + *microbic* or *microbial*] : of, relating to, or caused by several types of microorganisms

poly·mig·nyte *or* **poly·mig·nite** \,pälē'mig,nīt, -ləm-\ *n* -s [Sw *polymignit*, fr. *poly-* + *mign-* (fr. Gk *mignynai* to mix) + *-it* -ite — more at MIX] : a mineral (Ca,Fe,Y,etc.,Zr,Th)(Cb,Ti,Ta)O_4 consisting of a niobate and titanate of the metals of the cerium group with iron and calcium

poly·mix·ia \-'miksēə\ *n, cap* [NL, fr. Gk, mixture of many components, fr. *poly-* + *mixis* act of mixing (fr. *mignynai* to mix) + *-ia* -y] : a genus of small deep-sea berycoid fishes coextensive with the family Polymixiidae and resembling the squirrelfishes but having smooth scales and a pair of barbels on the chin — **poly·mix·i·id** \,=='=sēəd\ *n or adj*

po·lym·nia \pə'limnēə\ *n, cap* [NL, prob. fr. L *Polymnia*, *Polyhymnia*, one of the Greek muses, fr. Gk] : a small genus of American and chiefly tropical herbs (family Compositae) having large lobed leaves and corymbose heads of discoid and radiate yellow or white flowers — see LEAFCUP

pol·ym·nite \'päləm,nīt, pə'lim-\ *n* -s [Gk *polymnios* full of moss (fr. *poly-* + *mnion* moss, seaweed) + E *-ite* — more at MNIUM] : a stone marked with dendrites and black lines so disposed as to suggest rivers and marshes

poly·molecular \,pälē, -lə+\ *adj* [*poly-* + *molecular*] **1** : consisting of many molecules esp. of different sizes (high polymers are, in general, ~ —A.M.Sookne & Milton Harris) **2** : having a thickness of several molecules (~ layers) — compare MULTILAYER — **poly·molecularity** \"+\ *n*

poly·molybdate \"+\ *n* [*poly-* + *molybdate*] : any of various complex salts (as ammonium molybdate) regarded as derived from isopoly acids of molybdenum

1poly·morph \'pälē,mȯrf, -lə,m-\ *n* -s [ISV, fr. *polymorphous*] **1** : a polymorphous organism; *also* : one of the several forms of such an organism **2** : any of the crystalline forms of a polymorphous substance **3** : a polymorphonuclear leukocyte

2polymorph \"\ *adj* : POLYMORPHIC

poly·mor·pha \,=='mȯrfə\ *n pl, cap* [NL, *poly-* + *-morpha*] *in some esp former classifications* : a suborder or other group of beetles including the Clavicornia and Serricornia

poly·mor·phe·an \'=,=mȯrfēən, ,=,=='=ən\ *adj* [Gk *polymorphos* multiform + E *-an*] *archaic* : POLYMORPHIC

poly·mor·phic \'=,=mȯrfik\ *adj* [Gk *polymorphos* multiform + E *-ic*] **1** : POLYMORPHOUS b **2** : having or occurring in several distinct forms : exhibiting polymorphism (a ~ species) (man is both ~ and polytypic —*New Biology*) — **poly·morphi·cal·ly** \-fik(ə)lē\ *adv*

poly·mor·phism \'=,=mȯr,fizəm, ,=,=='=,=\ *n* -s [ISV *polymorphous* + *-ism*] : the quality or state of being polymorphous: as **a** (1) : capability of assuming different forms : capability of wide variation (2) : existence of a species in several forms independent of the variations of sex (as in various butterflies whose broods, appearing at different seasons, differ in size or color, or both, or in ants and termites, in which different castes exist) — compare DIMORPHISM, HETEROMORPHISM **b** : the property of crystallizing in two or more forms with distinct structures — compare ALLOTROPY

1poly·mor·pho·nuclear \,pälē,mȯrfə, -lə,m- +\ *adj* [*polymorphous* + *nuclear*] **1** *of a leukocyte* : having the nucleus complexly lobed **2** : being a neutrophil or other leukocyte of typical mature form with distinctly lobed nucleus

2polymorphonuclear \"\ *n* -s : a polymorphonuclear leukocyte

poly·mor·pho·nucleate \,pälē,mȯrfə, -lə,m-+\ *adj* [*1polymorphonuclear* + *-ate*] : POLYMORPHONUCLEAR

poly·mor·phous \,pälē,mȯrfəs, -lə,m-\ *adj* [Gk *polymorphos* multiform fr. *poly-* + *-morphos* -morphous] : having or assuming various forms, characters, styles, or functions (a ~ god): as **a** : POLYMORPHIC 2 **b** : crystallizing with two or more different structures — **poly·mor·phous·ly** *adv* — **poly·mor·phous·ness** *n* -ES

polymorphous-perverse \'=,=,=,=='=, ',=,=,=,=\ *adj* : relating to or exhibiting infantile sexual tendencies in which the genitals are not yet identified as the sole or principal sexual organs nor coitus as the goal of erotic activity and which are a basis for pregenital libidinal fixation

poly·mor·phy \'pälē,mȯrfē, -lə,m-\ *n* -ES [ISV *polymorph* + *-y*] : POLYMORPHISM

poly·my·ar·i·an \,=,=,mī,a(ə)rēən\ *also* **poly·my·ar·i·al** \-ēəl\ *adj* [*poly-* + *-myaria* + *-an* or *-al*] : having many cells in each quadrant of a cross-section — used of the arrangement of muscle cells in a nematode worm

poly·my·ar·i·ty \,=,=,mī'arəd-ē\ *n* -ES [*polymyarian* + *-ity*] : the condition of being polymyarian

poly·my·odi \,pälē,mī'ōd,dī, -lə,m-\ *n pl, cap* [NL, fr. *poly-* + *-myodi* (fr. Gk *myōdēs* muscular, fr. *mys* mouse, muscle) — more at MOUSE] *in former classifications* : a group of birds nearly equivalent to Passeres — **poly·my·od·ian** \,=,=,=ōdēən\ *or* **poly·my·odous** \-dəs\ *adj*

poly·my·oid \,=,=mī,ȯid\ *adj* [*poly-* + *my-* + *-oid*] **1** : having many syringeal muscles **2** [NL *Polymyodi* + E *-oid*] : POLYMYODIAN

poly·myositis \,pälē, -lə+\ *n* [NL, fr. *poly-* + *myositis*] : inflammation of several muscles at once

po·lym·y·thy \pə'liməthē; 'pälē,mithē, -lə,m-\ *n* -ES [NL *polymythia*, fr. Gk *polymythos* with many legends (fr. *poly-* + *mythos* myth) + NL *-ia* -y — more at MYTH] : the inclusion of many or several stories or plots in one narrative or dramatic work

poly·myx·in \,pälē'miksən, -lə,m-\ *n* -s [ISV, fr. NL *polymyxa* (specific epithet of *Bacillus polymyxa* — fr. *poly-* + *-myxa* —) + ISV *-in*] : any of several basic polypeptide toxic antibiotics that are obtained from strains of a soil bacterium (*Bacillus polymyxa*) and are active against gram-negative bacteria: as **a** *or* **polymyxin A** : one of three nephrotoxic antibiotics **b** *or* **polymyxin B** : the least toxic of the polymyxins used in the form of its sulfate chiefly in the treatment of some localized, gastrointestinal, or systemic infections

pol·y·nee \,=='nā\ *n* -s [Sw] : a tart made of rich cookie dough, filled with meringue to which ground almonds have been added, and topped with a cross made of two strips of the cookie dough

poly·nemid \,pälē'nēməd, -nem-\ *n* -s [NL *Polynemidae*] : a fish of the family Polynemidae

poly·nem·i·dae \-nemə,dē\ *n pl, cap* [NL, fr. *Polynemus*, type genus + *-idae*] : a family (usu. coextensive with a suborder Polynemoidea of Percomorphi) of fishes that resemble mullets but have the pectoral fin divided into two parts of which the upper is much like an ordinary fin and the lower is composed of several separate slender threadlike rays and abound on the sandy shores of warm seas, many of them being valued for food and some yielding isinglass

1poly·ne·moid \,=='nē,mȯid\ *adj* [NL *Polynemus* + E *-oid*] : resembling or related to the Polynemidae

2polynemoid \"\ *n* -s : a polynemoid fish

poly·ne·moi·dea \,=,=,nə'mȯidēə\ *n pl, cap* [NL, fr. *Polynemus* + *-oidea*] : a suborder of Percomorphi coextensive with the family Polynemidae

poly·ne·mus \,pälē'nēməs, -lə'n-\ *n, cap* [NL, fr. *poly-* + Gk *nēma* thread — more at NEEDLE] : a genus (the type of the family Polynemidae) of fishes resembling mullets

poly·neph·ric \,=,=,nefrik\ *adj* [*poly-* + *-nephric*] *of an insect* : having many Malpighian tubules

1poly·ne·sian \,pälə,nēzhən, -ēsh-\ *adj, usu cap* [*Polynesia*, islands of the central Pacific ocean + E *-an*] **1 a** : of, relating to, or characteristic of Polynesia **b** : of, relating to, or characteristic of the Polynesians **2** : of, relating to, or characteristic of the Polynesian languages **3** : of, relating to, or being a biogeographic region or subregion of the Australian region that includes the smaller tropical Pacific islands

2polynesian \"\ *n* -s *cap* [*Polynesia* + E *-an*] **1** : a member of tall stature, and large-boned build **2** : a group of Austronesian languages spoken largely in Polynesia

polynesian chestnut *n, usu cap P* **1** : a Polynesian tree (*Inocarpus edulis*) of the family Leguminosae **2** : the edible kidney-shaped seed of the Polynesian chestnut

poly·neuritic \,pälē, -lə+\ *adj* [NL *polyneuritis* + E *-ic*] : of, relating to, or marked by polyneuritis

poly·neuritis \"+\ *n* [NL, fr. *poly-* + *neuritis*] : neuritis of several peripheral nerves at the same time caused by alcoholism, metallic and other poisons, infectious disease, or vitamin deficiency (as of thiamine)

poly·neuropathy \"+\ *n* [*poly-* + *neuropathy*] : a disease of nerves; *esp* : a noninflammatory degenerative disease of nerves usu. caused by toxins (as of lead, alcohol)

1pol·y·noid \'pälə,nȯid, pə'linə,wȯd\ *adj* [NL *Polinoidae*] : of or relating to the Polynoidae

2polynoid \"\ *n* -s : a worm of the family Polynoidae : SCALE WORM

pol·y·noi·dae \,pälə'nȯi(,)dē, pə,linə'wī(,)dē\ *n pl, cap* [NL, fr. *Polynoe*, type genus (fr. Gk *Polynoē*, a sea nymph) + *-idae*] : a family of marine polychaete worms having the back covered with two rows of scales

1poly·no·mi·al \,pälē,nōmēəl, -lə,n-\ *n* -s [*poly-* + *-nomial* (as in *binomial*)] **1 a** : a mathematical expression of two or more terms **b** : an algebraic function of one or more variables consisting of the sum of terms whose factors are constants or positive integral or zero powers of the variables — called also *integral rational function* **2** : a technical name of a plant or animal consisting of a descriptive phrase of more than three words

2polynomial \"\ *adj* **1** : having the character of a polynomial **2** : consisting of many names or terms

poly·nuclear \,pälē, -lə+\ *adj* [ISV *poly-* + *nuclear*] : containing more than one nucleus: **a** : POLYCYCLIC a **b** : containing more than one central atom or ion — used of coordination complexes **c** : POLYMORPHONUCLEAR

poly·nu·cle·o·sis \,=,=,n(y)ūklē'ōsəs\ *n, pl* **polynucleo·ses** \-ō,sēz\ [NL, fr. ISV *polynucle-* (in *polynuclear*) + NL *-osis*] : the presence of an excess of polymorphonuclear leucocytes (as in the circulating blood)

poly·nucleotide \,pälē, -lə+\ *n* [ISV *poly-* + *nucleotide*] : a nucleotide (as of a nucleic acid) consisting of many mononucleotides in combination

po·lyn·ya *also* **po·lyn·ia** \'pälən'yä\ *n* -s [Russ *polyn'ya*, fr. *polyi* open, hollow; akin to OSlav *polje* field — more at FLOOR] : an area of open water in sea ice — distinguished from *lead*

poly·odon \'pälēə,dän\ *n, cap* [NL, fr. *poly-* + *-odon*] : a genus (the type of the family Polyodontidae) of fishes containing the paddlefish — **poly·odont** \-nt\ *or* **poly·odon·toid** \-,=='dän-,tȯid\ *adj or n*

poly·odon·tia \,pälēō'dänch(ē)ə\ *n* -s [NL, fr. *poly-* + *-odontia*] : the presence of more than the normal number of teeth

poly·odon·ti·dae \-ntə,dē\ *n pl, cap* [NL, fr. *Polyodont-*, *Polyodon*, type genus + *-idae*] : a family of fishes (order Chondrostei) comprising the genera *Polyodon* and *Psephurus*

polyoestrous *var of* POLYESTROUS

poly·oi·cism \,pälē'ȯi,sizəm, -ȯi,ki-\ *n* -s [ISV *polyoicous* + *-ism*] : the condition of being polyoicous

poly·oi·cous \,=,=ȯikəs\ *or* **poly·oe·cious** \,=,=ēshəs\ *also* **poly·ecious** \,=,=ēshəs\ *adj* [*poly-* + Gk *oikia* house + E *-ous* — more at VICINITY] : having the archegonia and antheridia sometimes on the same plant and sometimes on different plants (~ mosses) (~ liverworts) — compare HETEROICOUS, PAROICOUS — **poly·oi·cous·ly** *or* **poly·oe·cious·ly** *adv* — **poly·oi·cous·ness** *or* **poly·oe·cious·ness** *n* -ES

poly·oi·cy \'=,=ȯisē, -,ȯikē\ *n* -ES [ISV *polyoicous* + *-y*] : POLYOICISM

poly·ol \'=,=ȯl, -,ōl\ *n* -s [ISV *poly-* + *-ol*] : a compound (as sorbitol or pentaerythritol) containing usu. several alcoholic hydroxyl groups : a polyhydric alcohol

poly·olefin \,pälē+\ *n* [*poly-* + *olefin*] **1** : an olefin containing many double bonds **2** : a polymer of olefin (as polyethylene)

poly·on·y·mous \,pälē'änəməs\ *adj* [Gk *polyōnymos*, fr. *poly-* + *-ōnymos* (fr. *onoma* name) — more at NAME] : having many names : known by various names

poly·on·y·my \,=,='änəmē\ *n* -ES [Gk *polyōnymia*, fr. *poly-* + *-ōnymia* (fr. *onoma* name + *-ia* -y)] : plurality of names : the use of various names for one thing

poly·opia \,pälē'ōpēə\ *n* -s [NL, fr. *poly-* + *-opia*] : perception of more than one image of a single object esp. with one eye : multiple vision : DIPLOPIA — **poly·opic** \'=,=ōpik\ *adj*

poly·or·chi·dism \,=,='ȯ(r)kə,dizəm\ *n* -s [ISV *poly-* + *-orchidism*] : a condition of having more than two testes

poly·organic \,pälē+\ *adj* [*poly-* + *organic*] : having many organs

poly·os·tot·ic \,pälē,ä;städ·ik\ *adj* [ISV *poly-* + *-ost* + *-otic*] : involving or relating to many bones

poly·ovular \,pälē+\ *adj* [*poly-* + *ovular*] : of, relating to, producing, or containing more than one ovum (~ cycle) (~ follicle)

poly·ovulation \"+\ *n* [*poly-* + *ovulation*] : the production of several to many ova at a single ovulation (~ appears to be a primitive mammalian characteristic)

poly·oxy·ethylene glycol \,pälē,äksē + ...-\ *n* [*polyoxyethylene* fr. *poly-* + *oxy-* + *ethylene*] : POLYETHYLENE GLYCOL

poly·oxymethylene \,pälē+\ *n* [*poly-* + *oxy-* + *methylene*] : a polymer or hydrated polymer of formaldehyde; *esp* : PARAFORMALDEHYDE

polyoxymethylene glycol *n* : a linear hydrated polymer $HO(CH_2O)_nH$ of formaldehyde — see PARAFORMALDEHYDE

pol·yp \'pälәp\ *n* -s [MF *polype* octopus, nasal tumor, fr. L *polypus*, fr. Gk *polypous*, lit., many-footed, fr. *poly-* + *pous* foot — more at FOOT] **1 a** *also* **pol·ype** \"\ *archaic* : an animal (as an octopus, cuttlefish, or squid) having numerous feet or tentacles **b** : a typical coelenterate individual with a hollow tubular body having outer ectoderm separated from inner endoderm by mesogloea, terminating anteriorly in a central mouth surrounded by tentacles, and being posteriorly closed and attached to the substrate (as in *Hydra*) or more or less directly continuous with other individuals of a compound animal (as in *Obelia* or most corals) : ZOOID **2** [so called fr. the ramifications resembling the tentacles of an octopus] **a** : a projecting mass of swollen and hypertrophied mucous membrane (as in the nasal cavity) caused by chronic inflammation **b** : a pedunculated tumor (as of the lower intestine) that often undergoes malignant change

poly·parasitism \,pälē, -lə+\ *n* [*poly-* + *parasitism*] : HYPERPARASITISM 2

pol·yp·ar·i·an \,pälə'pa(a)rēən\ *adj* [*polypary* + *-an*] : of or relating to a polypary

pol·yp·ar·i·um \,=,='pa(a)rēəm\ *n, pl* **polypar·ia** \-ēə\ [NL, fr. ISV *polypary*] : POLYPARY

po·lyp·a·rous \pə'lipərəs\ *adj* [*poly-* + *-parous*] : POLYTOCOUS

pol·yp·ary \'pälə,perē\ *n* -ES [*polyp* + *-ary*] : the common investing structure or tissue in which the polyps of corals and other compound forms are embedded

pol·yp·ean \,=,='pēən\ *adj* [*polyp* + *-an*] : relating to or like a polyp

pol·yp·ec·to·my \,=,='pektəmē\ *n* -ES [*polyp* + *-ectomy*] : the surgical excision of a polyp

1poly·ped \'pälē,ped, -lə,p-\ *n* -s [*poly-* + *-ped*] : a polyped animal

2polyped \"\ *adj* : having many feet

poly·pe·da·tes \,=,=pə'dād·(,)ēz\ *n, cap* [NL, prob. irreg. fr. *poly-* + Gk *pēdētēs* leaper, dancer, fr. *pēdan* to leap, jump; akin to L *ped-*, *pes* foot — more at FOOT] : a genus (the type of the family Polypedatidae) of Old World tree frogs related to the Ranidae but distinguished by cylindrical transverse sacral processes

1poly·pe·datid \,=,='dād·əd, -'dād·ə,d\ *adj* [NL *Polypedatidae*] : of or relating to the Polypedatidae

2polypedatid \"\ *n* -s : a tree frog of the family Polypedatidae